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NEWS SUMMARY

...ence ...ief ...arts row

...Neil Cameron, Britain's ...ce chief, told officers of ...'s sixth tank division in ...g that "we both have an ...y at our door whose capital is Moscow."

...David Owen, Foreign Secre... said in Birmingham yester... that Sir Neil's visit to China designed to improve rela... but not at the expense of links with the Soviet Union. ...r. Norman Atkinson, Labour treasurer, called for Sir ... resignation, while other ...r and Tory politicians con...ded his remarks. The row ...es only four days after the ...e Minister attacked "mis...f makers" at the Ministry of Defence. Back and Page 2

...larx is daubed ...or May Day

...ritain's first May Day holiday ...as a blank holiday with little ...affic and sun only around the Moray Firth and Inverness in Northern Scotland. But shops in the West End of London and at Folkestone and Dover reported brisk trade, with many European visitors.

Karl Marx's grave at Highgate Cemetery North London, was smothered in red, white and blue paint. Aims for Freedom and Enterprise called for July 1 to be recognised as an annual holiday to celebate free enterprise. Mr. Eric Heffer MP demanded a "less work" charter at a Liverpool May Day rally.

Mine kills three

...ree Senegalese soldiers of the ...ed Nations force in Lebanon ... killed and one wounded ... their jeep ran over a mine

...ne frontier

... Berlin, the U.S. released a former Air Force intelligence officer who passed secrets to the USSR in return for an American student who tried to smuggle an East German doctor and his wife ...o the West in the boot of his ...ar. The swap came after the release of an Israeli, alleged to have spied for the CIA, from Mozambique last week. Other ...py exchanges may be in the offing.

...gandan purge

Radio Uganda reported that President Amin had dismissed Lietenant Colonel Nasur, commanding officer f the Revolution...ry Sucide Mechanised Regiment which is believed to have been rounding up Roman Catholics and giving their property to Moslems in the Masoka region, south-west of Kampala.

No surrender

...aly's Christian Democratic party meeting last night in the wake of week-end letters from Sig. Aldo Moro, the kidnapped former Premier, seemed intent to pursue its policy of not surrendering to the terrorists' ultimatum to release named prisoners.

Briefly . . .

...ells rescue team found the body of Michael Edward Pepper, competitor in the annual Three ...eaks race, near Ingleborough, North Yorkshire.

Labour has chosen Mr. Alan Roberts, chairman of the Manchester Corporation Housing Committee, as its prospective parliamentary candidate at ...otle and Mr. Bill Homewood, Iron and Steel Trades Confederation organiser, as its ...ttering candidate.

...wo soccer fans who admitted ...hting on the terraces at Satur...y's match between Morton and ...undee were each jailed for ...ree months by Greenock Court.

BUSINESS

$440m. offer by Philip Morris

● PHILIP MORRIS, the leading U.S. cigarette and beer producer, has made a $440m. takeover offer for Seven-Up in a bid to become a major competitor in the soft drinks industry.

The move is likely to meet fierce opposition from the founding families of Seven-Up, who control 45 per cent. of the stock. Page 34

● GRUNWICK strike leaders are likely to call off their 22-month action against the film processing plant within five weeks. Page 7

● WALL STREET was up 7.62 at 844.94 near the close.

Leyland offers cheap finance

● LEYLAND is launching a cheap finance scheme to compete with those offered by car importers. A study by the London-based Economic Models forecasting company says car imports will rise 12 per cent. this year. Page 6

● THE BUDGET was not enough to arrest the decline in business confidence, according to the monthly FT Survey of Business Opinion. Back and Page 36. Consumer confidence rose after the Budget, but it has not returned to the level of optimism expressed in January. Page 6. The London Business School says that the Government might be forced to restrain the growth of consumer spending this year or early next year. Page 4

● UNEMPLOYMENT, not wage inflation was the main enemy now, Mr. Hugh Scanlon said in his last presidential speech to engineering section delegates of the Amalgamated Union of Engineering Workers. He said that school leavers would seek "extreme political solutions." Back

● AILSA Shipbuilding's Troon yard has been awarded the last vessel in British Shipbuilders' £115m. Polish contract—a 4,400-ton bulk carrier. The State organisation has agreed to take over Ailsa, which was facing collapse because of a cash flow crisis.

Building society £46,000 short

● CHORLEY Permanent Benefit Building Society disclosed yesterday that about £46,000 was missing from its latest accounts. It did not say how the loss occurred. The society has assets of £1m. It has decided to seek a merger with Bradford and Bingley Building Society the tenth largest in the country.

It said that no money would be lost by investors as the £46,000 was covered by reserves. The society is not a member of the Building Societies Association.

The discovery of the losses at the Chorley Permanent Benefit Building Society comes less than two months after Grays Building Society in Essex discovered that at least £7m. was missing from its funds.

COMPANIES

● HEPWORTH Ceramic Tiles has increased its offer for H. and R. Johnson-Richards Tiles to one Ordinary Hepworth share and 58p for each Johnson-Richards share from one share and 39p. The offer has been accepted. Page 30

● SONATRACH, the Algerian State-owned oil and gas company, is negotiating nearly $1bn. (£546m.) worth of loans from international banks. Back

Pressure increases for reflation by West Germany

BY JUREK MARTIN MEXICO CITY, MAY 1

West Germany is facing increasing international pressure to apply extra economic stimulus before the Bonn summit in mid-July if it is to reach its stated growth target for this year of 3.5 per cent.

The U.S. is understood to advocate a direct West German tax cut. While not responding directly to this advice and while curtly dismissing some other criticisms, the Bonn Government has promised to review the economic evidence at the end of next month. It has not ruled out the prospect of reflationary action.

The concern with inadequate growth in general and that of West Germany in particular was the dominant theme at the week-end meeting here of the interim committee of the International Monetary Fund, under the chairmanship of Mr. Denis Healey, the U.K. Chancellor.

The committee took few hard decisions, referring most controversial issues back to the executive board for further study before the fund's annual meeting in Washington in September.

This included the so-called "substitution account" proposed by Dr. Johannes Witteveen, the outgoing managing director, under which nations could, in effect, exchange surplus dollars for Special Drawing Rights.

The U.S. and West Germany objected to the proposal in its present form, but declined to kill it outright.

The primary focus of the committee was on growth. An exceptionally blunt paper by Dr. Witteveens recommended targets for the major industrialised countries which, if met would ease the strain brought about by the present payments imbalances.

It called on West Germany to achieve real growth in both 1979 and 1980 of 4.5 per cent. a year. Japan was urged to grow a 7.5 per cent. over each of the next two years and Britain by 3.5 per cent. annually over the two-year span.

Reflecting the general view that some slow-down of U.S. growth is possible, he recommended a 4 per cent. per annum target for 1979-80, down from the 4.5 per cent. projected by both the Fund staff and the Carter Administration.

Sig. Filippo Pandolfi, Italian Finance Minister, said in Mexico City yesterday that an IMF delegation would visit Rome next month to negotiate a new standby credit—understood to be about $1bn.—Reuter

Recent U.S. economic policy was praised. The renewed anti-inflationary commitment and the move to higher interest rates were welcomed and it was felt that the decline of the value of the dollar had apparently "bottomed out."

Achievement of the Witteveen growth target would leave the U.S. with an underlying balance of payments deficit in 1980 of $9.3bn., about half that of last year.

West Germany would incur a $4.2bn. deficit, compared with a $7.6bn. surplus last year, while the Japanese surplus would be narrowed from $11.2bn. to $2bn. The British surplus would be $2.5bn., against last year's $1.9bn.

Mr. Healey told journalists that the state of the world economy was in many ways unsatisfactory and that most member nations had been particularly impressed with the way Dr. Witteveen's anlysis demonstrated the dangers of deflationary cycles.

He rejected what he suggested was a minority view that the root cause of lagging growth was currency instability.

Those who believed that action on currencies alone could solve global problems were "doomed to failure."

There was a predictable element of defensiveness in the West Germany reaction to the call for growth, which was directed much more at the Federal Republic than at Japan, last year's favourite villain.

Several Ministers stressed their concern about the latest forecast of the five West German economic institutes projecting a meagre 2.5 per cent. real expansion this year.

Herr Hans Mathoefer, the West German Finance Minister, rejected both the internal forecasts and other external esti-

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IMF outlook Page 16

Permanent pay strategy sought by Callaghan

BY CHRISTIAN TYLER, LABOUR EDITOR

A NEW DEAL with the trade unions in which wages would be permanently tailored to fit Labour's economic strategy was outlined b the Prime Minister yesterday.

He chose Britain's first May Day holiday to spell out more clearly than before that he saw no future for free collective bargaining. He coupled this with an onslaught on the Conservatives' free market philosophy.

In a frankly electioneering speech, he appeared brimming with confidence that Labour had unlocked the secret of controlling wages without precipitating a revolt by the trade unions.

Mr. Callaghan clearly believes that this recipe will carry the party to victory at the General Election.

At the conference of the Association of Professional, Executives Clerical and Computer Staff at Eastbourne, he promised the Government would work for a "new understanding" with the unions that would carry the Labour movement into the 1980s.

This was his chosen phrase for the next chapter of the social contract, a label that in many trade unionists' eyes stands only for wage cuts.

Referring to the talks begun between TUC leaders and Ministers, Mr. Callaghan set out the economic perimeters within which the Government expected to reach a "consensus."

Inflation fear

He quoted no earnings target, but said that because inflation was coming down to under 8 per cent., and living standards were rising, "the level of wage claims in the next wage year—what you put in—will probably start at a lower level than they did this year."

Hinting that the Government would be less severe in its exercise of the next pay restraint policy after July 31, he said that the lower wage claims would leave a "sufficient margin" for dealing with anomalies and stretching out differentials.

"It is now inevitable that the Government—any Government—must have direct discussions with the trade union movement about the future of pay each year."

The question was which political party would be involved in those discussions. "You had better trust us to work it out. Remember the mess the others made of it."

The Government would ask the TUC to take into account reduced rate of inflation, the fact that earnings were rising faster than prices, the last two rounds of tax cuts, and the danger of resumed inflation next year.

Even at 7½ or 8 per cent. the rate of inflation would still be too high, he said, and if exports were uncompetitive that would add to already high unemployment.

The Government wanted also to see if there was "real interest" among the unions in reducing overtime working.

Conscious of Tory moves to amend the Finance Bill, the Prime Minister said that taxes should be cut further. But Labour was not going to be drawn into a boom-and-bust cycle.

Callaghan and poll Page 4

GEC wins £50m. contract

BY JOHN LLOYD

A CONTRACT worth £50m. for the supply of two turbine generators to South Korea has been won by General Electric Company.

The contract was won against competition from the two leading U.S. generator manufacturers, General Electric and Westinghouse, and from Brown Boveri of Switzerland. It was signed yesterday in Seoul, only three months after GEC announced a £100m. order from Hongkong.

The latest order is for the design and supply of two 1,000 megawatt turbine generator units for the two nuclear power stations at Ko-Ri, the fifth and sixth nuclear stations in the country's electricity system. GEC has supplied a number of generators and other equipment for the other stations.

The work will be undertaken at the company's four plants at Larne, Northern Ireland, and at Manchester, Rugby and Salford. It will provide work for 800 men over the next three years. The turbines ordered are among the biggest in the world.

Mr. Robert Davidson, managing director of GEC's turbine generator division, said yesterday that the Korean deal and the order in Hong Kong showed the company could compete successfully in export markets.

It had been forced to place much more emphasis on foreign market because of the cut in orders from the U.K. electricity industry.

The last order placed with GEC by the Central Electricity Generating Board was in 1974. It was for a turbine generator for Littlebrook power station.

Over the past three years, GEC has taken export orders for machines totalling 7,800 megawatts, representing about 90 per cent. of the U.K. export business in turbine generators in the period.

Mr. Davidson said, however, that even with the Korean order, the turbine generator division would be working at less than 80 per cent. of capacity.

Finance for the contract has been arranged through the merchant bank of Lazard Brothers, in conjunction with the Export Credit Guarantee Department.

GEC praised the part played by the Department of Industry in arranging the terms with the ECGD, and the assistance given the company by the U.K. ambassador to South Korea, Mr. W. S. Bates.

Mr. Alan Williams, Minister of State for Industry, said yesterday that the winning of the contract proved that the British power plant industry could compete in world markets.

Flexible aid plan for State oil

BY RAY DAFTER, ENERGY CORRESPONDENT

OIL COMPANIES may be asked to choose if they want to pay British National Oil Corporation's share of exploration drilling costs in the next round of offshore licences.

Proposed new conditions for the sixth round of drilling licences are expected to be published shortly in a Government consultative document.

It is almost certain that the State oil corporation will be given a majority stake in virtually all the new licences awarded — a condition which applied to the fifth round of allocations. But this time oil companies will be expected to pay at least part of the corporation's drilling bill.

The idea which seems to be emerging from the Department of Energy is that companies will be invited to make an offer on the amount they are willing to contribute to the corporation's expenses. The offers will be considered when the Department reviews applications for various blocks.

Companies have already indicated that they are opposed to paying the corporation's costs, which could amount to £2m. or more in some blocks for each well. Small, independent groups in particular have said that if the corporation's interest was to be carried by private industry they could not afford to compete in the sixth round.

However, the flexible formula to be presented to the oil industry may overcome some such misgivings.

Aim now is stable sterling exchange rate

By Peter Riddell, Economics Correspondent

THE GOVERNMENT intends to try to keep tthe sterling exchange rate broadly stable at about its present level for the time being after its sharp fall so far this year.

The authorities are not believed to have a specific exchange rate target, as they did last year.

But the aim is to maintain stability within a broad range which may be adjusted over the longer-term to take account of changes in the competitive position.

This policy has been demonstrated by the very large official support for the pound in the last fortnight.

This will be reflected in a probable decline in the underlying level of the U.K.'s official reserves in April of more than $1.75bn.

In addition, the U.K. repaid about $1.2bn. of its overseas debts last month so the total drop in the reserves—to be announced to-morrow afternoon—will probably be at least $3bn. The total at the end of March was $20.32bn.

The authorities are not surprised, and fairly relaxed about the recent outflows insofar as they represent the withdrawal of part of last year's speculative froth.

The Government's change of tactics to check the decline in sterling is shown by a comparison between March, when the trade-weighted index fell by more than 5 per cent., and April, when there was a decline of less than 1 per cent.

This, in turn, was reflected in falls in the reserves of $281m. and probably more than $1.75bn. in the two months, respectively.

Official exchange rate policy is particularly aimed at maintaining the competitive position of British goods at the average level of last year, as measured by changes in relative unit labour costs.

This implies that if earnings rise more rapidly in the U.K. than elsewhere, the exchange rate will be allowed to fall.

The authorities appear to believe that the exchange rate is about right at present on this basis while also taking into account the dangers of pushing up the rate of inflation.

Europe fibre cartel deal on way

BY RHYS DAVID

EUROPE'S leading fibre producers are expected to sign soon an agreement worked out in talks in Brussels for a market-sharing cartel, aimed at bringing fibre production and capacity into line with demand and reducing the heavy losses of the past three years.

Final details of the arrangement were settled at a recent meeting between producers and have been sent to Viscount Davignon, EEC Commissioner for Industry, under whose auspices the talks were started.

Member - Governments and trade unions representing workers in the industry are also being told the result of discussions.

Because of U.S. anti-trust laws the American-owned fibre producers Du Pont and Monsanto are not parties to the agreement.

The proposals envisage a stabilisation of capacity followed by a period of reduction, and a sharing of the market between producers in accordance with past performance.

Action will be taken under Clause 85/3 of the Rome Treaty which allows companies to take measures normally in breach of EEC rules in exceptional circumstances, such as the severe excess capacity in fibres.

Unusual

If the agreement is implemented, it will set an important precedent for other industries *which are suffering* from overcapacity. However, the fibres industry is unusual in that a handful of companies account for a large proportion of output and thus a market-sharing pact is easier to negotiate.

The agreement, talks on which started last autumn, has been *complicated* by the need to make special provision for the Italians who have been seeking to expand their fibres industry, now somewhat smaller than that of other EEC member countries.

The Italians made it clear that any agreement seeking simply to impose uniform reductions in *capacity or to freeze* market shares would fail to meet their aspirations.

The formula worked out divides the EEC producers into two groups—the four Italian companies and those in other countries—and gives the Italians a bigger share in the expected *growth in the market* up to 1981.

The objetcive si to bring the European fibre industry—which in the last three years has lost more than $2bn.—back from its present 6/-70 per cent. capacity working to about 84 per cent. by 1981—a level at which it should again be making profits.

To help to achieve this, the non-Italian producers are being expected to reduce their capacity in the six main fibre types—nylon textile and carpet filament, nylon staple, polyester filament and staple and acrylic from 2.04m. tonnes in 1977 to 1,707m. tonnes by next year and to hold this until 1981.

Production in these categories is expected to be about 1.488 tonnes in 1981.

The Italians will also be expected in the short term to reduce their capacity to 515,000 tonnes from the present 600,000 tonnes. But they will be allowed to increase it again to 600,000 tonnes by 1981.

This will enable the Italians to replace older capacity with new and compares with the original plan to boost capacity to 800,000 tonnes.

hTe second main part of the agrement sets out the share of the market to be allocated to individual producers including ICI and Courtaulds in the U.K.

Companies will be *expected to* kep to the pattern of deliveries set in 1976 when total deliveries throughout Europe amounted to 2.006m. tonnes.

The share will remain the same up to 1981 except that the Italians will be allowed a bigger proportion of the estimated growth of 270,000 tonnes in the total size of the market during that period.

Other suppliers will forfeit their share of 95,000 tonnes out of the total growth and this will be transferred to Italian producers, enabling them to increase their total share of the market from 17 to 21 per cent.

Monitoring of the system will be carried out by the European Federation of Fibre Producers, which will collect information from the producers and make adjustments on a six-monthly basis in accordance with market developments.

Efforts are also being made to persuade other producers in Europe who are not part of the cartel not to increase their market share.

These include smaller producers within the EEC, the subsidiaries of U.S. companies and producers on the fringe of the Common Market.

Overcome

Companies involved in the discussions believe that any objections to the scheme from the EEC competition directorate have now been overcome and that the Commission will give its approval within the next few weeks.

When the agreement is sanctioned by the EEC and member-Governments, the heads of the main chemical groups are expected to be summoned before Viscount Davignon to sign the agreement on behalf of their fibre subsidiaries.

A return to normal competitive conditions is assumed for the period after 1981.

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FEATURES

For latest Share Index 'phone 01-246 8026

OVERSEAS NEWS

Building industry may suffer from Fed's interest ruling

BY STEWART FLEMING NEW YORK, May 1.

AMID MOUNTING concern about the threat to the housing industry posed by recent increases in U.S. interest rates, the Federal Reserve Board this morning approved a basic change in U.S. banking practice which could put further pressure on the hard-pressed savings and loan industry, a major source of housing finance.

The Fed has approved proposals to allow the automatic transfer of funds from savings accounts to current accounts at commercial banks. Under the Fed ruling, individuals would be able to make such automatic transfers from November 1 this year.

The new freedom will allow individuals to maintain low current account balances and transfer funds they do not need immediately to savings accounts which bear interest. For banks offering such a service it comes close to allowing them to pay interest on current accounts as well as savings accounts. Some banks, using electronic systems at branches, are ready to offer such a service.

Mr. Robert H. McKinney, chairman of the Federal Home-loan Bank Board has described the new regulation as another blow at the ability of thrift institutions to attract savings. Since the beginning of the year there have been sharp declines in some cases by as much as a third, in savings flowing into some of the main types of savings institutions.

In part, this is attributed to the growing attraction of investing in the public securities markets such as Treasury issues, where interest rates have been rising.

Mortgage interest rates have also been rising and last week Mr. McKinney said that recent moves by the Fed to put upward pressure on short-term interest rates had raised the spectre of double-figure mortgage interest rates. In March the average effective mortgage interest rate rose to 9.24 per cent.

The main worry is that declining savings receipts and rising mortgage costs will hit the housing market severely, and cause a slowing down which could spread to other sectors of the building industry.

Already Federal banking agencies are beginning to examine ways of helping the savings institutions, perhaps by raising ceilings on savings interest rates.

Last week Mr. William Miller, the Federal Reserve's chairman, said that such action might be necessary, at least on a temporary basis.

Meanwhile in the financial markets there has been no widespread move to follow last week's increase to 8½ per cent. in the prime rate announced by the nation's third largest bank, Chase Manhattan. Several smaller U.S. commercial banks have followed the increase, including the Harris Bank in Chicago this morning, but among the top banks only Marine Midland, the 13th largest has followed suit. Other banks are still expected to follow later.

U.S. economic index down

BY DAVID BELL WASHINGTON, May 1.

THE U.S. INDEX of leading economic indicators fell 0.1 per cent. in March according to preliminary figures issued by the Department of Commerce to-day.

But the Department also reported that the February index —the indicators are chosen so that together they will give some indication of the future behaviour of the economy—rose 0.5 per cent. an ddid not decline as first reported.

Analysts said that it was quite likely that to-day's figures might also be revised upwards on the basis of more complete information. But they conceded that most economists had expected a more dramatic improvement in March, in line with administration forecasts that the economy had "snapped back" from the effects of the winter and the coal strike.

Two of the 12 indicators that make up the index—changes in inventories and net business foramtion—were not available. Of the remaining 10, six declined, includin gthe change in total liquid assets, orders for plant and equipment and new orders. Three rose including average work-week, vendor performance and building permits.

The lay-off rate was unchanged. Accordin gto the preliminary figures the index stood at 134.1 at the end of March compared with 134.2 at the end of February.

Peaceful May Day marches in Spain

In rallies throughout Spain, thousands of workers officially celebrated May Day for the first time since the Civil War, Robert Graham writes from Madrid. More than 150,000 people marched through Madrid in a major show of strength by the trade union movement. Organisers said the demonstrations were designed to impress on the Government of Sr. Adolfo Suarez the trade union concern over economic policies.

In Barcelona some 250,000 demonstrators turned out at the request of the Catalan trade unions. But there was no repeat of last year's violent clashes between demonstrators and riot police, writes David Gardner.

Nigeria protests

Fifty-two people were arrested after week-end demonstrations in Lagos by schoolchildren over increases in board and lodging fees. This follows protests in recent weeks by university students over increased charges, Gabriel Ogunsekan writes from Lagos.

A Government statement said seven people had died in recent clashes. It said they were hostile elements opposed to a peaceful transition from military to civilian rule.

Daoud's successor

Afghanistan's ruling military council announced the appointment yesterday of a new president. Mr. Nur Mohammed Tarakki, secretary-general of the Communist Party will replace President Mohammed Daoud, killed in a bloody coup last Thursday, our foreign staff writes.

The appointment is seen as a move to appease the Soviet Union which was the first country to recognise the new regime. India has also recognised the new leadership.

U.S. bomb project

The U.S. wants to begin research on a new kind of nuclear bomb with high explosive power but low radiation, David Bell reports from Washington. The project is still very much in its infancy, said a spokesman.

Mrs. Margaret Thatcher, the British Opposition leader has said the West should build the neutron bomb as a defence against the Soviet arms build-up, our correspondent reports from Tehran. Mrs. Thatcher was on a four-day visit to Iran.

Bulgarians sacked

In Bulgaria, two deputy Prime Ministers and the Minister of Agriculture have been sacked apparently because of the country's disappointing economic performance last year, Paul Lendvai reports from Vienna. They are Mr. Sava Dulbokov, Mr. Mako Dakov and Mr. Gancho Krustev.

U.K. DEFENCE CHIEF IN PEKING

Chinese told Russia is 'our common enemy'

PEKING, May 1.

BRITAIN'S DEFENCE chief, Sir Neil Cameron, to-day told officers from China's 6th Tank Division which guards Peking that the two countries had a common enemy in the Soviet Union.

"Our two countries are coming more and more together," he said. "This must be good because we both have an enemy at our door whose capital is Moscow."

Sir Neil, Marshal of the Royal Air Force and Chief of Defence Staff, made the comment during a lunch at divisional headquarters after watching tanks go through gunnery practice and manoeuvres.

He said: "There are men here with great spirit who will fight their tanks to the death if needed in the defence of China.

"Some of our problems are different, but one thing is absolutely clear to us, and that is the growing strength of the Soviet tank force. We must share, I believe, our common experience so that we are in the best position to take on the Soviet tank force if this should ever be necessary." The Chinese officers applauded Sir Neil's statement.

Sir Neil emphasised to correspondents later that he was not speaking for the Atlantic Alliance. "I'm certainly not speaking for NATO. I'm certainly not speaking for the British Government, except the British Government has authorised that I go to China and have discussions on defence philosophy with Chinese leaders."

Sir Neil added that as head of British military, he had a responsibility for strategic concepts and the authority of the Government to talk broadly about defence philosophy with Chinese leaders.

Asked about the possibility of closer co-operation between NATO and China, he said: "I can certainly see none at the moment."

Sir Neil arrived in Peking last Wednesday and has had a long talk with Hua Kuo-feng, the Chinese party leader and Prime Minister. He visits a naval unit in Shanghai to-morrow, before returning to Britain.

Sir Neil told correspondents that he expected Chinese military delegations to visit Britain later this year, primarily to view technology.

Questioned about the Harrier vertical take-off aircraft, he said this was only one aspect the Chinese were looking at in their defence planning. "I don't think it has gone any further than that."

Sir Neil suggested that key matters for modernisation projects included aerospace and surface-to-air air-to-air and low-level air defence weapons, systems and anti-tank equipment.

The Chinese were also interested in marine propulsion units. "I think we just happen to have in Tyne and Olympus two of the best engines in the world," he said.

Before visiting China, Sir Neil spoke at a news conference in Hong Kong of "the tremendous growing Soviet threat." He mentioned Moscow's growing ability to move troops rapidly by air from one front to another.—Reuter

Visitors to Hanoi report clashes on border

BY K. K. SHARMA HANOI, May 1.

SERIOUS FIGHTING took place between Chinese and Vietnamese troops on the border between the two countries about 10 days ago, according to diplomatic sources here.

Reports of the clashes were brought by foreign visitors who were in northern Vietnam to help with an agricultural project. They heard heavy artillery firing for the three days of their visit but had no information about the intensity of the fighting or whether it was continuing.

Relations between China and Vietnam are cool for many reasons including a border dispute. But so far neither side has made any public statement on their differences.

Officials in Peking have said the differences are in the nature of "a family quarrel." They hoped the matter would be patched up. If the reports of clashes are substantiated, the quarrel has obviously become serious.

CHINA has said that large numbers of Chinese living in Vietnam are leaving for home, but gave no reason, reports Reuter from Peking. The announcement, by Liao Cheng-cin, Vice-chairman of the Chinese National People's Congress, surprised diplomats and observers here, although they said that they had expected some Chinese to seek to return home because of the recent abolition of "bourgeois trade" in southern Vietnam.

Vietnamese officials say that reports on differences with China are exaggerated. They make no comment on the border situation but a campaign has been launched to bring to light "atrocities" by Cambodian soldiers during recent border raids. China is backing Cambodia in that country's border dispute with Vietnam.

In Peking a Minister said recently that the Vietnam-Cambodia issue had become more than a border dispute because of intervention by a super power—an obvious reference to Russia. Hanoi officials declined comment on Chinese Minister's statement that the issue would be prolonged and would not be solved easily.

Vietnamese officials deny that their country is losing the Russian line or that fighting along the Cambodia border is a "war by proxy," as western Press reports have suggested. One official said Vietnam did not need Soviet military help and could handle its problems itself because of its vast quantities of captured arms.

Officials insist that after winning prolonged wars against France and the U.S., Vietnam will never place itself in a position where its independence is compromised.

Fukuda for talks on dollar

BY OUR OWN CORRESPONDENT WASHINGTON, May 1.

MR. TAKEO FUKUDA, the Japanese Prime Minister, arrives in Washington to-day for two days of talks which are expected to concentrate on the weakness of the dollar and the continuing Japanese trade surplus.

The prime minister will see Mr. Cyrus Vance, Secretary of State, and other officials to-morrow and will meet President Carter on Wednesday. He will also meet key members of Congress who are expected to reinforce the Administration's call for Japanese action to reduce the $8.9bn. trade surplus.

Mr. Fukuda is expected to underline the concern with which Japan and other countries view the failure of Congress to pass an effective energy policy. Herr Hulmut Schmidt, the West German Chancellor said much the same thing last week.

The recent improvement in the fortunes of the dollar has pleased the Japanese who had begun to despair of action by the Carter administration to protect the currency. But the President is expected to make clear that the U.S. still expects significant action to cut the trade surplus.

Ottawa code for S. Africa

BY VICTOR MACKIE OTTAWA, May 1.

CANADA has announced a Code of Conduct for Canadian companies operating in South Africa. A Government document deals with working conditions, wages, fringe benefits, training and promotion, and race relations.

The code was announced by Mr. Don Jamieson, the External Affairs Minister. It says there is national concern about the extent to which Canadian companies are involved in an economic system based on racial discrimination.

The code adds that the Government hopes that every Canadian company active in South Africa will promote employment practices based on the principle of equal treatment

Companies are requested to make annual public reports in sufficient detail to permit the assessment of their progress

The Canadian Labour Congress has applauded the Government's decision but says the code has no teeth. "It isn't mandatory and there are no proper procedures for examining the extent to which the companies comply with it," Mr. Dennis McDermott, the Congress's president said.

No sign of progress in Iran oil talks

By Our Own Corresp[illegible] TEHRA[illegible]

REPRESENTATIV[illegible] National Iranian [illegible] (NIOC) and th[illegible] Western consorti[illegible] duces 90 per [illegible] crude, to-day ended [illegible] round of negotiations [illegible] oil purchase agreement [illegible] sign of substantial progre[illegible]

During the discussions [illegible] long-term relationship betw[illegible] NIOC and the consortium was reviewed, a NIOC statement said. It added that the negotiations would continue on a date to be agreed.

Unlike the statement at the end of the last two-week negotiating session in March, to-day's communique made no mention of any progress in the talks and did not indicate when they would resume. The earlier statement on March 14 reported "significant progress in several areas."

Oil sources in Tehran believe the latest round which began on April 15, was stuck on basic issues rather than minor details.

Service fee

The consortium, led by British Petroleum with a 40 per cent. share, is understood to want a service fee of about 30 cents per barrel of crude oil produced, instead of the existing discount system of 22 cents per barrel purchased by the member companies. It is understood that NIOC reportedly has not yet agreed to any switch from the discount system.

The consortium has claimed that, in practice, the discount amounts to only about 11 cents a barrel.

Another basic issue is NIOC's insistence on firm predetermined oil purchase commitments, with penalty clauses if the consortium companies fail to meet targets and leave Iran with a shortfall in oil revenue. The consortium wants to make any such arrangement as flexible as possible, according to industry sources.

Other issues, including the purchase by the consortium of oil products from NIOC's Abadan refinery, are also under negotiation.

A 20-year sales-purchase agreement was signed in 1973, but it soon became obsolete because of OPEC pricing provisions, and is largely disregarded by both sides.

$1.68m March trade surplus for Brazil

BY DIANA SMITH RIO DE JANEIRO, May 1.

FOR THE first time this year, Brazil achieved a modest surplus of $1.681m. in its trade balance. March exports totalled $1.059bn., while imports totalled $1.057bn.

This brings the quarterly deficit to $345.82m. compared with $149.4m. for the same period in 1977. The principal culprits are heavy oil imports, in order to build up stocks, and the combined effects of reduced plantations, long droughts or lower world prices of soya, coffee, maize and sugar exports. These factors could, according to official estimates, cut export revenue on agricultural products by $1.5bn. by the end of 1978.

With shifts in focus, away from the traditional areas of agriculture towards intensive industrial development—which cannot be achieved without heavy imports of capital goods and some raw materials—and the effects of the world steel recession on iron ore exports, the country is having to alter the nature and markets of its products.

The five countries where Brazil places 40 per cent. of its 1977 exports—the U.S. (24.35 per cent.), West Germany (2.06 per cent.), the Netherlands (4.98 per cent.), Japan (4.52 per cent.) and France (4.07 per cent.)—are not easy markets for the manufactured goods and services Brazil hopes to sell abroad in growing quantities. The developing countries have thus become logical targets.

There, Brazil has begun to make an impact, in both civil engineering and manufactured goods—but the need to import Middle Eastern, Nigerian or Central American oil is reflected in Brazil's trade balances with these areas. Imports of $628.1m. from the Middle East in the first two months of 1978 contrast sharply with exports of $39m., imports of $30.3m. from Nigeria outweight exports of $8.8m. in the same period, and a trading deficit of $5.8m. with Central America contrasts with the $83m. Brazilian surplus in trade with the entire membership of the Latin American Free Trade Association (ALALC).

Brazil is struggling to find, and produce, its own oil in economic quantities, but technical teething troubles have been serious, and it will be years before oil imports can ease off.

AP-DJ adds from Santo Domingo: Latin American countries have renewed their attacks on what they term the "protectionist" restrictions imposed by the U.S. on sugar imports. In a statement submitted to the eighth annual meeting of the special Commission for Consultation and Negotiations (CECON) of the Organisation of American States, the countries expressed their "deep concern" over proposals to set new import taxes on sugar. Mr. Allan Wendt, of the U.S. State Department, said earlier the U.S. expects to sign the sugar agreement before next July.

Dubai oil concessions

BY CELIA MAY DUBAI, May 1.

TWO AMERICAN oil companies have been granted exploration rights both on and offshore in the Emirate of Dubai, which presently has an annual oil production of 360,000 barrels a day from offshore fields.

South Eastern Drilling Company (SEDCO) and Houston Oil and Minerals will explore a 630,000-acre-area over a period of 35 years. The concession area was previously held by Texas Pacific Oil which gave up its rights last year. During that time two dry wells were drilled offshore. According to the new concession seismograph surveys must begin in two months.

Dubai Petroleum Company has over 50 wells offshore which are in production, but it has been some time since any new oil finds have been found in Dubai and it was thought that most likely sources had been exhausted. However, Dubai is not so dependent on its oil revenue as some other Gulf states—its neighbour, Abu Dhabi is the major oil producer with 1.7m. barrels a day.

Exploration is also continuing in other emirates but so far only Sharjah has any production capacity. Houston Oil and Minerals is already drilling off Umm Ul Qaiwain, one of the smallest of the emirates.

● Kuwait has given Malta a $4.2m. soft loan which will finance the creation of a fishing fleet and a separate drainage scheme.

Our Valletta correspondent writes: The loan, which carries a 3 per cent. interest is repayable in 15 years time. Malta has already received loans amounting to nearly £M11m. (£14m.) by Saudi Arabia and Abu Dhabi to help in the building of a £M48m. transhipment port at Marsa Lokkon, the island's south coast.

Bonn check on Comecon vessels

By Adrian Dicks BONN, May 1.

THE West German Government, under increasing pressure to help *the hard-hit shipping industry*, has decided to introduce rules under which East European vessels would have to register with the German authorities before undertaking business between West Germany and ports in third countries.

No date has been announced for the introduction of the registration requirement, which for the time being appears to be mainly a warning to the Soviet Union and other East European shipping fleets accused by German shippers of unfair price-cutting.

A fitful process of negotiation between Bonn and Moscow has been going on for a year or more, and the West German Government is still officially hopeful that this will produce results. If it does not, German officials are already hinting that the new registration requirement might be backed up with a licensing system for East European ships plying certain conference routes. Announcing the registration move, the Bonn Government also repeated its concern to bring about a joint approach to the problem by the European Community.

At a Press conference here last month, Herr Nikolaus Schues, president of the West German shipowners' federation, said that in some instances Soviet shippers were undercutting West German lines on North Atlantic container services by as much as 50 per cent.

The broad question of price dumping by Comecon shipping *lines is expected to be discussed* by European Community Transport Ministers in June. According to figures published by West German shipowners, Soviet vessels now carry up to 95 per cent. of freight in bilateral traffic with some member countries of the Nine as well as 18 per cent. of east-bound and 22 per cent. of west-bound freight on the North Atlantic.

Record U.S. steel imports

U.S. STEEL imports in the first three months this year totalled 5.75m. tons, the highest ever quarterly figure, compared with *3.3m. in 1977, the American Iron* and Steel Institute reported. Japan accounted for 2.1m. tons and the EEC nearly 2m., the institute said in a statement.

March imports alone came to just under 2m., 74 per cent. higher than March 1977.
Reuter

Pao urges Japan to adopt charter buy-back scheme

BY CHARLES SMITH TOKYO May 1.

JAPAN COULD "unload" between $2bn. and $3bn. worth of surplus foreign exchange by buying ships which are being chartered to Japanese shipping lines by foreign shipowners under the long-term arrangements known as "Shikumisen."

This was claimed by Mr. Y. K. Pao, chairman of the World-wide Shipping Group of Hong Kong, in an exclusive interview with the Financial Times.

Mr. Pao proposed his buy-back plan early this year to Japanese businessmen and politicians (including the Prime Minister Mr. Takeo Fukuda). Official Japanese reactions to the plan have been extremely guarded but Japan's latest import promoion package provides for a new form of low interest rate foreign exchange financing, through the Export Import Bank, which could be applied to the repurchase of Shikumisen ships. Whether or not the *Japanese Government* will "guide" shipping lines in this direction remains unclear.

A shikumisen charter is one in which an overseas shipowner orders a ship from a Japanese yard to the specifications of a Japanese shipping line and then charters the ship back to the Japanese shipping line for the whole (or most) of its expected operating life.

The arrangement was devised to allow Japanese shipping lines the chance of operating foreign registered ships which could be manned with non-Japanese crews and would therefore be cheaper to operate than ships registered in Japan. Shikumisen charters account for a large part of the tonnage of independent Hong Kong shipowners, including World-wide which has about *half* its fleet on charter to Japan.

Apart from providing Japan with a means of "unloading" foreign exchange the repurchase of Shikumisen ships by Japanese lines would reduce over-capacity in the world tanker market since the ships would almost certainly be scrapped by their new owners. From the point of view of the Japanese shipping lines themselves the arrangement would be a means of release from long-term charters on vessels which cannot earn their keep while the world shipping market is at its current low ebb.

Mr. Pao says that World-wide and other groups like it would probably move into the second-hand market with funds made available from the repurchase of Shikumisen ships, possibly buying from European shipowners and then chartering back again in an arrangement vaguely resembling the original Shikumisen deals.

In a final comment on Japan he suggests that plans to store 5m. tons of crude oil in VLCC and ULCC crude carriers anchored in Japanese waters should be doubled. Storage of 10m. tons could require 40 to 50 ships which would itself be a way of withdrawing surplus capacity from the world tanker market.

A major operator of ships chartered under the Shikumisen system is Japan Line, one of the "big six" Japanese shipping lines and reputedly the world's largest tanker operator. Japan Line is at the moment receiving emergency assistance from its banks in order to tide it over a financial crisis caused mainly by the slump in the world tanker market.

Rumours that the company might seek to renegotiate its charters with Hong Kong shipowners were denied recently by the President of Japan Lines's lead bank the Industrial Bank of Japan. The IBJ president Mr. Kisaburo Ikeura, told an audience in Hong Kong that his bank's basic policy was to see that Japan was enabled to "honour and observe" its existing contracts including charters. This does not affect the possibility that Japan Line and other Japanese shipping companies might prefer repurchase to a prolonged outlay on unnecessary charter contracts.

United Airlines buys DC10s

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

HOPES THAT United Air Lines of the U.S., the biggest airline in the Western world, might buy some of the European Airbus Industrie A-300 airbuses have been dashed by the airline's decision to order five McDonnell Douglas DC-10 tri-jets, worth $170m. (over £80m.) with an option on another ten DC-10s.

The airline had been studying the 250-plus seat A-300 as one of a number of types to replace ageing narrow-bodied equipment in its fleet, such as DC-8s, which have been in service since the late 1950s and early 1960s.

United sent a top-level team to Toulouse recently ot study the A-300. Following the recent order for 23 A-300s by Eastern Air Lines, Airbus Industrie had high hopes of winning further U.S. orders, with United at the top of its list.

Vietnam to establish motor project with foreign partner

BY K. K. SHARMA HANOI, May 1.

THE VIETNAMESE Government expects to sign an agreement shortly with a foreign company for car manufacturing in this country.

The choice will be made from offers received from Japanese, French and West German companies. The company selected will be subject to the same liberal conditions as is being offered by Vietnam for private foreign investment in almost all sectors.

The Government has decided that it does not have sufficient funds for development of the economy and that help from other Socialist and friendly countries will not be enough either for the reconstruction and development at the required pace. Hence private foreign *investment* will be welcomed and be subject to conditions that are more liberal than those offered by most third world countries.

So far the only agreements reached are with Italian and West German companies on offshore exploration for oil but these are of a special nature.

Talks are now in progress with companies from Europe, Japan and Canada for collaboration in areas like fruit processing, light industry, textiles and pharmaceuticals. But prospects are bright in many other fields since the Government notification says "the foreign party may invest in exploitation of natural resources, agriculture, industry, building, transport, etc., with the exception of those fields and branches which the Government reserves for itself." Officials say the Government has few reservations and welcomes foreign investment in almost unlimited areas.

The only stipulation is that foreign investors must agree to maximum ownership of 49 per cent. of the equity—only those companies which agree to export their entire production will be allowed to be 100 per cent. foreign owned. The clause that most foreign companies find unwelcome is that all ventures must export at least as much as would cover repatriation of profits and costs of imported raw materials. But Vietnam insists that this is a way of preserving valuable foreign exchange.

Foreign companies investing in Vietnam will be given guarantees against nationalisation for 10 to 15 years but longer periods can be negotiated. In the event of nationalisation compensation in foreign exchange of agreed amounts will be paid. Various tax concessions are offered and exporters and those bringing in *high technology get preferential* rates. In all cases the maximum income-tax will be 50 per cent. of profits.

Foreign companies in Vietnam will fall into three categories. Firstly, those which agree to share production on an agreed basis; secondly, joint ventures; and thirdly, companies which set *up factories* which will export all their production.

Priority is to be given to equipment, machinery and technology which enables Vietnam to modernise it economy and expand existing plants and to use licences and patents for this purpose.

Japanese payments accord

BY OUR FAR EAST EDITOR TOKYO, May 1.

JAPAN and Vietnam exchanged Notes in Hanoi on Saturday on an aid-cum-debt repayment agreement which concludes two years of difficult negotiations between the two countries.

Under the agreement Vietnam will take responsibility for and repay some Y15.5bn. worth of debts owed to Japan by the former South Vietnam plus an unspecified amount of interest on the debts. Japan simultaneously undertakes to extend a Y4bn. grant to Vietnam, to be followed by a further Y12bn. worth of grants stretching over a three-year period starting next year. Japan will also make low interest loans worth Y20bn. to Vietnam over the next two years with the probability of another Y10bn. in the following year.

The agreement means that Vietnam has accepted the principle of responsibility for shouldering South Vietnamese debts in return for grant aid from Japan which will almost exactly cover the cost of repayment.

Vietnam thus emerges from the two-year talks with a financially attractive arrangement while Japan has managed to preserve the principle that "successor" Governments must accept responsibility for the debts incurred by their predecessors. To have publicly abandoned this principle would have been embarrassing for the Ministry of Foreign Affairs

The undertaking to provide low interest loans at the rate of Y20bn. over the next two years marks the start of regular Japanese aid to Vietnam. The amounts are relatively small in relation to Japanese aid to member countries of the Association of South East Nations (Indonesia, Thailand, Malaysia, the Philippines and Singapore). For example, Japanese aid to Thailand is running at roughly double the level envisaged for Vietnam. To have offered the Vietnam Government aid equivalent to the amounts being dispensed to ASEAN would probably have provoked complaints from ASEAN members.

In view of ASEAN sensitivities Japan appears to have adopted *a low profile throughout* the negotiations with Hanoi but expectations of the scope for developing trade are nevertheless considerable.

World Economic Indicators

UNEMPLOYMENT

		April '78	March '78	Feb. '78	April '77
U.K.*	000s	1,387.1	1,400.0	1,409.0	1,322.6
	%	5.8	5.9	5.9	5.6
Holland*	000s	†201.9	198.7	202.7	199.8
	%	5.1	5.0	5.1	5.2
		March '78	Feb. '78	Jan. '78	March '77
W. Germany	000s	1,098.9	1,224.9	1,213.5	1,084.2
	%	4.9	5.4	5.4	4.8
France*	000s	1,086.1	1,050.3	1,027.7	1,002.5
	%	5.0	4.9	4.7	4.6
Japan	000s	1,410	1,360	1,260	1,270
	%	2.6	2.5	2.4	2.4
U.S.*	000s	6,148.0	6,090.0	6,260.0	7,064.0
	%	6.2	6.1	6.3	7.3
		Feb. '78	Jan. '78	Dec. '77	Feb. '77
Belgium	000s	290.9	299.5	296.4	260.0
	%	11.8	12.1	12.0	9.8
		Jan. '78	Oct. '77	July '77	Jan. '77
Italy	000s	1,520.0	1,598.0	1,692.0	1,459.0
	%	8.0	8.0	8.5	6.8

* Seasonally adjusted. † Provisional.

Goldsmith agrees to join Patino Board

SIR JAMES GOLDSMITH has joined the Board of Patino, the Dutch-based metals company with close Canadian connections, which is headed by Mr. Antenor Patino, 79, the Bolivian tin millionaire, and controlled by the Patino family.

This is the first time that Sir James, the financier and industrialist who has British and French nationality, has had any business links with Mr. Patino, whose daughter Isabel he married after they eloped in 1953.

A long estrangement followed the marriage and Isabel's death in childbirth the next year, but for the last ten years the two families have been on friendly terms.

Sir James, whose chief business interest is his French-based master company, Generale Occidentale, said of his new connection with the Patino group: "I have no direct interest in the company.

"I have joined the Board at the invitation of Antenor Patino. I'm there to be helpful to management with no direct management role."

Patino, in which the German group Preussag obtained a 30 per cent. stake last year, has interests in a number of countries, including Canada, Brazil and New Caledonia, but none in Bolivia.

It has substantial cash holdings and controls the British quoted company Amalgamated Metal Corporation.

Mr. Frederick McCutcheon, a former chairman of the Toronto Stock Exchange, is also becoming a director of Patino.

Callaghan may postpone election until next year

BY RICHARD EVANS, LOBBY EDITOR

MR. JAMES CALLAGHAN outlined his views on sustaining Britain's economic recovery in a May Day message to the Labour Party in a way that suggested he may seek to delay a General Election for as long as possible.

His traditional party message, made this year for the first time on a Bank Holiday, laid greatest emphasis on the continuing need to combat inflation by restricting wage claims after July to "an overall commonsense level of settlement."

Repeating his refusal to allow a pre-election boom, he said the requirements for steady and sustained growth were internationally agreed solutions and concerted action to meet problems; rates of inflation even below present levels; the regeneration and rebuilding of British industry; better public services; and greater individual freedom.

The emphasis placed on continuing moderation over wages by the trade unions in the next phases suggests that the Prime Minister is trying to lay the groundwork for the Government to continue in office into next year should this prove feasible with the continuing lack of a Commons majority.

Ministers' hopes for postponing an election until the autumn or later rose at the weekend when Mr. David Steel, Liberal leader, said that last week's disastrous by-election results would not push the party into ending the Lib-Lab pact prematurely.

The supposition of Ministers is that Mr. Steel will keep the pact in operation until the end of July, leaving the committee stage of the Finance Bill as the only major hurdle in sight for the Government.

Dr. David Owen, Foreign Secretary, told a May Day rally in Birmingham yesterday that higher national and international priority must be given to disarmament if the right of the individual to live in peace and security was to be preserved.

Institutions invest £6.5bn.

BY JOHN BURMAN

PENSION FUND and insurance companies invested a total of £6.5bn. last year, a £574m. increase on the 1976 total.

Full year figures for institutional investment, published today by the Central Statistical Office, confirm earlier trends suggesting that the lower inflation rate has had a marked impact on the rate of cash inflow into the pension funds, so the insurance companies continue to be a slightly larger force in the securities market.

In 1977 pension funds invested £3.19bn., a 9 per cent. increase on the 1976 total. Insurance companies invested 10.2 per cent. more last year, at £3.34bn.

Four quarter figures show a sharp reversal in earlier moves towards higher cash holdings in both sectors. Insurance companies reduced their cash balances by £199.9m. in the last three months of 1977. Pension funds reduced net short-term assets by £65m. in the quarter. Government securities accounted for £662.6m. of the insurance companies' £843.9m. of net new investments in the past quarter. Ordinary shares absorbed £233.8m., taking the companies' total gilt-edged investments in 1977 to £2.2bn., and new equity investment to £575.8m.

The pension funds increased their holdings of Government securities by £206m. in the past three months, taking 1977 total new purchases to £1.1bn.

Additional direct property investments of £148m. in the final quarter make total pension funds investments for the year £535m., £15m. more than in 1976. But insurance companies' direct property investments slipped from 1976's £449.7m. to £410.1m.

Prudential reports Page 33

Handling sector urged to boost exports

BY MICHAEL CASSELL

THE MECHANICAL handling industry must make every effort to increase its overseas sales efforts, according to a report from the industry's sector working party prepared at the request of the National Economic Development Council.

The report says that the total value of U.K. output of mechanical handling equipment is about £400m., with a quarter of sales accounted for by overseas buyers. At the same time, however, imports account for nearly 20 per cent. of total U.K. sales.

It says that the industry should aim by 1980 to raise U.K. machinery output to £476m., increase exports to 31 per cent. of total sales and cut imports to 15 per cent. of total requirements.

Mechanical Handling Sector Working Party Report. NEDO, Millbank Tower, Millbank SW1 4QX.

Mechanical Handling Survey Pages 17-28

Express considers return to Scottish printing

By Ray Perman, Scottish Correspondent

THE DAILY EXPRESS is again considering printing its Scottish edition North of the border just four years after closing its Scottish printing operations in Glasgow, with the loss of 1,800 jobs.

Express Newspapers has approached George Outram, publishers of the Glasgow Herald, with a view to having the Scottish Daily Express printed on contract at the Herald's new premises.

Two weeks ago, the management of The Sun made a similar approach to Outram's which is a subsidiary of Scottish and Universal Investments. The company is considering both inquiries.

Ironically, the Herald is to move at the beginning of next year into the Albion Street building which was the Scottish headquarters of Beaverbrook Newspapers, former owners of the Express, until April 1974.

After the closure and the switch to Manchester printing of the Scottish Daily Express and Scottish Sunday Express, the building was the home of the ill-fated workers' co-operative paper, the Scottish Daily News. Outram's bought the building and the presses last year for a sum believed to be about £1m.

Albion Street is now being re-equipped with photo composition equipment under a £10m. modernisation programme. However, agreement with the unions has still to be reached over reductions in manning and the use of direct input by journalists into the computers.

Printing in Manchester has meant that the Daily Express has had to meet early deadlines to catch trains to Scotland. This has made inclusion of late Scottish news and sports results difficult and in consequence the paper has lost sales to its Scottish rivals.

Whitehall 'may curb consumer spending soon'

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

THE GOVERNMENT may be forced to take action later this year or early 1979 to restrain the growth of consumer spending, according to an economic analysis from the London Business School published to-day.

In its post-budget assessment, the school says that the U.K. is faced with the prospect that most of the current account surplus from North Sea activities is being used immediately.

"Amid all the discussion of what to do with North Sea oil, there has been a quiet *fait accompli*—it has been handed back in the form of tax cuts and the payments surplus has disappeared."

The school claims that consumer spending is rising too rapidly, given the other demands upon the economy, although chances are that this will not continue for long, either because of Government action or as a result of the impact of a falling exchange rate.

The assessment takes a generally pessimistic view of the U.K.'s economic prospects. It gives a warning of the dangers of a rise in short-term interest rates to an average of 8-9 per cent. in the course of the financial year, some outflow of official reserves, and monetary growth at or above the upper limit laid down by the Government.

The combination of a weaker currency and a resulting higher inflation rate is likely to keep the growth of consumer spending below the official, and most other forecasts, although the rise in 1978 still will be substantial.

This prospect is set against the background of an already rapid rate of monetary expansion, larger than expected tax cuts, "disappointing" first quarter trade figures and a sharp fall in the exchange rate since February.

The school shares widespread doubts about the apparent inconsistency between borrowing requirement projections for 1978-79 and monetary targets.

The report also says it would be dangerous to assume that a combination of under-spending and higher inflation will reduce borrowing. If there is a significant increase in public sector awards, compared with those in the private sector, the result could be an increase in borrowing.

Liberals decide to fight Hamilton by-election

BY OUR SCOTTISH CORRESPONDENT

THE Liberal Party, badly shaken by its poor performance at Epsom and High Wycombe last week, decided at the week-end that it would fight the coming by-election at Hamilton, Lanarkshire.

The Scottish executive of the party was split over the decision, which was carried by one vote.

A Liberal candidate stood in the October, 1974, General Election and received only 1,500 votes, about 4 per cent. of the poll. The party did not fight the last Scottish by-election a month ago in the Garscadden constituency in Glasgow.

A new candidate has not been selected, although a short-list has been drawn up. The decision means that Hamilton will be at least a four-sided fight. Mrs. Margo MacDonald is standing for the Scottish National Party and Lord Alexander Scrymgeour for the Conservatives.

Labour has not chosen a candidate, although several prominent members of the party in Scotland are in the running, including Mr. George Robertson, a Right-winger, who was chairman of the party last year, and Mrs. Janey Buchan, chairman of the Scottish party and wife of Mr. Norman Buchan, Tribunite MP.

The writ for the election which was caused by the death of Mr. Alec Wilson, is expected to be moved soon. Labour's majority in 1974 was 3,332 over the Nationalists and the party is expecting a close race.

Fertiliser prices rise likely in June

By Kevin Done, Chemicals Correspondent

FERTILISER prices are likely to rise again in June.

Prices last rose at the beginning of January, but the major U.K. producers have told the Price Commission that they intend to raise prices again to take account of rising raw material costs and to improve the industry's profitability.

Imperial Chemical Industries, Fisons, and UKF have already notified the Price Commission, and Albright and Wilson is expected to follow suit.

ICI, the dominant U.K. producer, which controls about 50 per cent. of the nitrogen fertiliser market, raised average fertiliser prices by just over 10 per cent. in January. Straight nitrogen prices rose by 15 per cent.

The latest round of increases is likely to be more modest, averaging perhaps 5 or 6 per cent. It takes account of the higher price ICI is paying for its main fertiliser raw material, natural gas.

Natural gas is used to make ammonia the chief raw material for nitrogen fertilisers. Towards the end of last year, ICI ended months of negotiations with British Gas by agreeing to pay a higher price for its gas. The 15-year contract, agreed before the *fourfold OPEC oil* price increase, was not due to be renegotiated until 1984.

Some fertiliser manufacturers have been surprised that ICI has moved so quickly for a second price increase. Early this year, some important raw material costs were moving down as a result of the strengthening of sterling against the dollar. This applied particularly to imports of phosphate rock and potash.

Compound fertilisers are now close to continental prices, and imports in the first eight months of the current fertiliser season, from June to January, increased to 112,000 tonnes, compared with 73,000 tonnes last year.

● The £25m. expansion by UKF of its fertiliser capacity at Ince, Cheshire includes the building of a 250,000 tonnes a year ammonium nitrate solution plant, not an ammonium nitrate finished fertiliser plant, as suggested on April 11.

World Value of the Pound

The table below gives the latest available rates of exchange for the pound against various currencies on April 28, 1978. In some cases rates are nominal. Market rates are the average of buying and selling rates except where they are shown to be otherwise. In some cases market rates have been calculated from those of foreign currencies to which they are tied.

Exchange in the U.K. and most of the countries listed is officially controlled and the rates shown should not be taken as being applicable to any particular transaction without reference to an authorised dealer.

Abbreviations: (S) member of the sterling area other than Scheduled Territories; (k) Scheduled Territory; (o) official rate; (F) free rate; (T) tourist rate; (n.c.) non-commercial rate; (n.a.) not available; (A) approximate rate no direct quotation available; (sg) selling rate; (bg) buying rate; (nom.) nominal; (exC) exchange certificates rate; (P) based on U.S. dollar parities and going sterling dollar rate; (Bk) bankers' rate; (Bas) basic rate; (cm) commercial rate; (cn) convertible rate; (fn) financial rate.

Sharp fluctuations have been seen lately in the foreign exchange market. Rates in the table below are not in all cases closing rates on the dates shown.

Place and Local Unit		Value of £ Sterling
Afghanistan	Afghani	85.00
Albania	Lek	10.1429
Algeria	Dinar	7.3692
Andorra	French Franc	8.41½
	Spanish peseta	147.45
Angola	Kwanza	n.a.
Antigua (S)	E.Caribbean $	4.9507
Argentina	Ar. Peso Free Rate	1.688
Australia (S)	Australian $	1.6138
Austria	Schilling	27.20
Azores	Portug. Escudo	77.20
Bahamas (S)	Ba. Dollar	1.8245
Bangladesh (S)	Taka	29.025
Bahrain (S)	Dinar	0.709
Balearic Is.	Spa. Peseta	147.45
Barbados (S)	Barbados $††	3.649
Belgium	B. Franc	(cm) 58.80 (fn) 58.85
Belize	B $	3.649
Benin	C.F.A. Franc	420¾
Bermuda (S)	Bda. $	1.8245
Bhutan	Indian Rupee	15.7418
Bolivia	Bolivian Peso	36.49
Botswana (S)	Pula	1.5110
Brazil	Cruzeiro ‡‡	31.496
Br. Virgin Isles (S)	U.S.$	1.8245
Brunei (S)	Brunei $	4.2560
Bulgaria	Lev	1.71
Burma	Kyat	12.57683
Burundi	Burundi Franc	167.25
Cameroon Rp	C.F.A. Franc	420¾
Canada	Canadian $	2.0668
Canary Is.	Spanish Peseta	147.45
Cape Verde I.	Cape V. Escudo	n.a.
Cayman Is. (S)	Cay. I. $	1.52042
Cent. Al. Rp.	C.F.A. Franc	420¾
Chad	C.F.A. Franc	420¾
Chile	C. Peso	(Bk) 50.10
China	Renminbi Yuan	3.1564
Colombia	C. Peso	(F) 69.74
Comoros Is.	C.F.A. Franc	420¾
Congo (Brazzaville)	C.F.A. Franc	420¾
Costa Rica	Colon	15.691
Cuba	Cuban Peso	1.3684
Cyprus (S)	Cyprus £	0.7040
Czechoslovak.	Koruna	(com) 10.30 (nc) 20.60 (T) 17.65
Denmark	Danish Krone	10.30
Djibouti	Fr.	3.15
Dominica (S)	E. Caribbean $	4.9507
Domin. Rep.	Dominican Peso	1.8245
Ecuador	Sucre	(O) 45.49 (F) 47.55
Egypt	Egyptian £	(O) 0.703 (T) 1.27
Ethiopia	Ethiopian Birr	(P) 3.7810
Eq'l Guinea	Peseta	147.45
Falkland Is. (S)	Falkland Is. £	1.0
Faroe Is.	Danish Krone	10.30
Fiji Is.	Fiji $	1.5958
Finland	Markka	7.705
France	French Franc	8.41½
Fr. C'ty in Af*	C.F.A. Franc	420¾
Fr. Guiana	Local Franc	8.41½
Fr. Pac. Is.	C.F.P. Franc	153.00
Gabon	C.F.A. Franc	420¾
Gambia (S)	Dalasi	4.017
Germany (East)	Ostmark	3.78½

Place and Local Unit		Value of £ Sterling
Germany (West)	Deutschmark	3.78½
Ghana (S)	Cedi	2.06 (sg)
Gibraltar (S)	Gibraltar £	1.00
Gilbert Is.	Aust. Dollar	1.6138
Greece	Drachma	68.0305
Greenland	Danish Kroner	10.30
Grenada (S)	E. Caribbean $	4.9507
Guadaloupe	Local Franc	8.41½
Guam	U.S. $	1.8245
Guatemala	Quetzal	1.8245
Guinea Rep.	Sily	37.522
Guinea Bissau		76.325
Guyana (S)	Guyanese $	4.6525
Haiti	Gourde	9.1225
Honduras Rep	Lempira	3.6763
Hong Kong (S)	H.K.$	8.4525
Hungary	Forint	(com) 72.66 (T) (nc) 56.35
Iceland (S)	I. Krona	484.5
India (S)	Ind. Rupee	15.7418
Indonesia	Rupiah	757.17
Iran	Rial	(A) 128
Iraq	Iraq Dinar	0.53785
Irish Rep (k)	Irish £	1.00
Israel	Israel £	30.58
Italy	Lira	1,581½
Ivory Coast	C.F.A. Franc	420¾
Jamaica (S)	Jamaica Dollar	2.466
Japan	Yen	409½
Jordan (S)	Jordan Dinar	0.551 (sg)
Kampuchea	Riel	2189.4
Kenya (S)	Kenya Shilling	14.4380
Korea (Nth)	Won	[illegible]
Korea (Sth)	Won	886.08
Kuwait (S)	Kuwait Dinar	0.508
Laos	Kip Pot Pol	364.9
Lebanon	Lebanese £	5.5458
Lesotho	S. African Rand	1.58699
Liberia	Liberian $	1.8245
Libya	Libyan Dinar	(P) 0.5401
Liechtenstein	Swiss Franc	3.53½
Luxembourg	Lux Franc	58.80
Macao	Pataca	9.06776
Madeira	Portug'se Escudo	77.20
Malagasy Rp.	MG Franc	420¾
Malawi (S)	Kwacha	1.56295
Malaysia (S)	Ringgit	4.36525
Maldive Is. (S)	Mal Rupee	7.1705
Mali Rp.	Mali Franc	841½
Malta (S)	Maltese £	0.725
Martinique	Local Franc	8.41½
Mauritania	Ouguiya ‡	84.2067
Mauritius (S)	M. Rupee	11.5172
Mexico	Mexican Peso	41.59
Miquelon	C.F.A. Franc	420¾
Monaco	French Franc	8.41½
Mongolia	Tugrik	(O) 5.958 (‡)
Montserrat	E. Carribean $	4.9507
Morocco	Dirham	7.75 (sg)
Mozambique	Moz. Escudo	60.245
Nauru Is.	Aust. Dollar	1.6138
Nepal	Nepalese Rupee	21.694
Netherlands	Guilder	4.02¾
Neth. Ant'les	Antillian Guild	3.2658
New Hebrides	Franc	136.00
	Austl. Dollar	1.6138
N. Zealand (S)	N.Z. Dollar	1.80355
Nicaragua	Cordoba	12.85
Niger Rp.	C.F.A. Franc	420¾
Nigeria (S)	Naira	1.18118
Norway	Norw. Krone	9.85¾
Oman Sultanate of (S)	Rial Omani	0.632
Pakistan	Pkst. Rupee	18.10
Panama	Balboa	1.8245
Papua N.G. (S)	Kina	1.6227

Place and Local Unit		Value of £ Sterling
Paraguay	Guarani	228.28
P'pl's D. Rp. of Yemen (S)	S. Yemen Dinar	(A) 0.62507
Peru	Sol	(exC)(A) 258.35
Philippines	Ph. peso	13.4385
Pitcairn Is. (S)	£ sterling	—
	New Zealand $	1.80355
Poland	Zloty	(Cm) 62.29 (T) 62.29
Portugal	Pgse. Escudo	77.20
Port Timor	Timor Escudo	77.20
Principe Isle.	Pgse. Escudo	77.20
Puerto Rico	U.S. $	1.8245
Qatar (S)	Qatar Ryal	7.10
Reunion Ile de la	French Franc	8.41½
Rhodesia	Rhodesian $	1.2855
Romania	Leu	(cm) 8.49 (n/c)(T) 22.79
Rwanda	Rwanda Franc	174.48
St. Christopher (S)	E. Caribbean $	4.9507
St. Helena	St. Helena £	1.0
St. Lucia (S)	E. Caribbean $	4.9507
St. Pierre	C.F.A. Franc	420¾
St. Vincent (S)	E. Caribbean $	4.9507
Salvador El	Colon	4.5770
Samoa (Am.)	U.S. $	1.8245
San Marino	Italian Lire	1,581½
Sao Tome	Pg'se. Escudo	77.20
Saudi Arabia	Ryal	6.51
Senegal	C.F.A. Franc	420¾
Seychelles	S. Rupee	15.55
Sierra Leone (S)	Leone	2.0
Singapore (S)	Singapore $	4.2560
Solomon Is. (S)	Australian $	1.6138
Somali Rep.	Som Shilling	(A) 11.4852
Sth. Africa (S)	Rand	1.58699
S.W. African Territories (S)	S. A. Rand	1.58699
Spain	Peseta	147.45
Span. Ports in North Africa	Peseta	147.45
Sri Lanka (S)	S.L. Rupee	28.07½
Sudan Rp.	Sudan £	(A) 0.685
Surinam	S. Guilder	3.2658
Swaziland (S)	Lilangeni	1.58699
Sweden	S. Krona	8.45¼
Switzerland	Swiss Franc	3.53½
Syria	Syria £	(A) 7.1612
Taiwan	New Taiwan	(P) 68.551
Tanzania (S)	Tan. Shilling	14.48½
Thailand	Baht	37.240
Togo Rp.	C.F.A. Franc	420¾
Tonga Is. (S)	Pa'anga	1.6080
Trinidad (S)	Trin. & Tobago	4.3788
Tunisia	Tunisian Dinar	0.765 (sg)
Turkey	Turkish Lira	45.76
Turks & C's	U.S. $	1.8245
Tuvalu	Australian $	1.6138
Uganda (S)	Ug. Shilling	14.22
Utd. States	U.S. Dollar	1.8245
Uruguay	Uruguay Peso	(cm) 10.25 (fn) 10.19
Utd. A'b Emis.	U.A.E. Dirham	7.07
U.S.S.R.	Rouble	1.29
Upper Volta	C.F.A. Franc	420¾
Vatican	Italian Lire	1,581½
Venezuela	Bolivar	7.825
Vietnam (Nth)	Dong	(O) 4.616 (T) 4.3791 (‖)
Vietnam (Sth)	Piastre	3.5756
Virgin Is. U.S.	U.S. Dollar	1.8245
Western Samoa (S)	Samoan Tala	1.1847
Yemen	Ryal	8.30 (sg)
Yugoslavia	New Y Dinar	35.893
Zaire Rp.	Zaire	1.4876
Zambia	Kwacha	1.485

* That part of the French community in Africa formerly part of French West Africa or French Equatorial Africa.
† Rupees per pound.
‡ The Ouguiya has replaced the CFA franc. The exchange was made at a rate of CFA Frs.5 to one unit of the new currency.
§ General rates of oil and iron exports 78.629.
‖ Based on cross rates against Russian rouble.
** Rate is the Transfer market (controlled).
†† Rate is now based on 2 Barbados $ to the dollar.
‡‡ Now one official rate.

LOCAL ELECTIONS: WEST MIDLANDS 1

May Day carnival fun conceals Labour's poor election chances

LABOUR PARTY supporters in the West Midlands yesterday celebrated the Labour movement's first May Day public holiday in carnival style.

Digbeth Civic Centre, near Birmingham city centre, rocked to the music of West Indian steel bands, street theatre entertained the £1-a-head revellers, and the dashing Dr. David Owen, Foreign Secretary, watched the proceedings.

Yet there was a hollow ring to yesterday's celebrations. On Thursday, the Labour Party in the West Midlands is on a hiding to nothing in the local government elections.

David Churchill reviews prospects in the Heart of England.

Because of the vagaries of the council electoral system arising from the 1974 re-organisation of local government, Labour is defending almost twice as many seats as the Conservatives in the seven metropolitan district councils, where a third of the seats are up for election.

Since Labour won these seats in 1973 on an anti-Conservative swing, it is likely that Labour's losses this week will be heavy.

Party workers on both sides in the West Midlands feel that their candidates' fates at the ballot box will be heavily influenced by voters' attitudes to Westminster.

Local issues are virtually non-existent in the West Midlands election campaigns, however hard the parties try to drum up interest.

Labour is attacking on the traditional front of housing but is making little headway. Even a proposed *80p rent rise* next month for council tenants in Tory-controlled Birmingham does not seem to have sparked off any resurgence of support for Labour.

Ironically, the Government's determination to keep rate rises below 10 per cent. this year, especially in the metropolitan districts, has benefited Conservative-controlled councils in the West Midlands and left the rates a non-issue.

Birmingham ratepayers, for example, faced only an average 3 per cent. rise in their rate bills last month.

There still seems considerable confusion in the public's mind about exactly what elections are being held this week—an attitude hardly conducive to improving the already abysmal turn out—under a third—at local Government elections.

Last year, voters in the region elected the West Midlands Metropolitan Council. This year, the elections are for the metropolitan district or lower-tier authorities who still, however, have considerable status and power. They are responsible for education and personal social services.

There are seven of these metropolitan district councils where one-third of the seats are up for election: Birmingham, Coventry, Dudley, Sandewell, Solihull, Walsall, and Wolverhampton.

Labour now controls Wolverhampton and Sandwell with the Conservatives holding power in Birmingham, Coventry, Dudley and Solihull. There is no overall control in Walsall.

As the seats being contested represent the third of councillors who topped the polls in May 1973—a very good year for Labour—the bulk of these seats are at present Labour-held. Some 105 of the 179 seats being contested are therefore being defended by Labour.

The Tories hold 62, the Liberals 5, and others 7.

This puts Labour at a disadvantage since it must hold its present seats and make inroads into Tory strongholds.

Thus the emphasis is on what Labour can hold and what the Conservatives can win. In Wolverhampton, Labour has an overall majority of eight and a lead of ten over the Conservatives.

A more likely loss for Labour is Sandwell, where Labour is defending 21 seats to the Tories' ten. Labour's present ten-seat majority is jeopardised by some retiring Labour councillors standing as independents.

The most vulnerable Conservative council is Coventry, which was won only last year in a by-election following the death of the then Lord Mayor. But again, Labour is defending 13 seats to the Conservative's six — a position that gives the Tories the chance to consolidate their slender majority.

In Birmingham, Dudley and Solihull, the Conservatives expect to increase their majorities.

In addition to the metropolitan district elections, there are three non-metropolitan district authorities in the West Midlands area where elections will be held on Thursday—Cannock Chase, Shrewsbury and Atcham.

The authorities who completed boundary changes by 1976 and opted for election by one-thirds are holding elections this year. This time, it is those councillors with the lowest vote in 1976, when the last elections were held, whose seats are being contested.

As 1976 was a good year for the Tories, the position in these elections is the reverse of that in the metropolitan districts.

The Conservatives, who control Shrewsbury, are defending 21 seats in all three districts, compared with 15 being defended by Labour.

In Labour-controlled Cannock Chase, the Tories must capture four of the eight Labour seats being defended—and hang on to their own seven seats—to gain control.

A more likely Conservative gain is Tamworth, where the balance of power is held by independents. The Tories need to gain two seats to assume overall control.

The Liberal challenge is not extensive and they have been criticised for not wanting to risk humiliating defeats. In Birmingham, the Liberals are contesting only 23 seats—only one more than the National Front.

Probably the smallest party contesting the West Midland elections is the Independent Working Class Party, with two members and party funds of just 50p.

Low public spending challenge in Dudley

DUDLEY, one of the seven West Midland metropolitan districts with an election on Thursday, looks at first sight an unprepossessing local authority.

It has a population of about 300,000, covers an area of almost 38 square miles, and is famous—apart from its zoo—as the heart of the Black Country.

Yet underneath this bland exterior lies an issue that could prove an electoral time-bomb for local politicians: Dudley ratepayers get much less for their money that in most British local authorities.

Tory-controlled Dudley spends less than three-quarters of the average spent by all metropolitan districts on public services, yet its rates are no lower, and often higher.

An internal council management report confirms this. "Dudley remains one of the lowest spenders among metropolitan districts for many individual services and in total."

Analysis of Dudley's spending per head of population as a percentage average for all metropolitan districts shows: education, 79 per cent.; social services, 62 per cent.; refuse collection, 83 per cent.; parks and open spaces, 73 per cent.; and libraries and museums 80 per cent.

This chronic underspending by Dudley was brought to the attention of parents recently by the National Union of Teachers which threatened industrial action to force the council to reduce the size of classes.

The council agreed last week to provide an extra 86.5 teaching posts. But this still leaves Dudley behind the average pupil/teacher ratio for the West Midlands.

The council's case in reply to criticisms of being mean is two-fold. First, because of the 1974 local government reorganisation, a larger local authority was created out of traditionally low-spending small authorities in the area. This meant that Dudley has had a low resource base ever since.

Second, Dudley is classified as a metropolitan district although it has more in common with a shire county. Government policy has been to favour metropolitan districts facing severe economic and social problems. Thus, Dudley, which is more rural than urban, has lost out in Government aid to its fellow metropolitan districts.

But while Dudley is undoubtedly suffering from the vagaries of Whitehall policies towards local government, there exists a feeling locally that the council could do more to improve its services—without, for example, being forced to by teachers industrial action.

COMPANY NOTICES

RENOWN INCORPORATED
NOTICE TO E.D.R. HOLDERS

On 14th April, 1978 the Board of Directors met and issued the following report:—

ANNUAL BUSINESS RESULTS

(Audited and on a consolidated basis)

	Year ended 31st December Y million 1977	1976	U.S.$ thousand 1977	1976
Net sales	153,631	164,237	640,129	684,321
Income before income taxes	8,625	7,030	35,937	29,292
Income taxes	4,824	4,032	20,100	16,800
Income from consolidated operations	3,801	2,998	15,837	12,492
Equity interest in earnings of Associated Companies, Net	218	772	908	3,216
Net income	4,019	3,770	16,745	15,708

CASH DIVIDEND APPLICABLE TO THE YEAR

	Yen		U.S. Dollar	
Historical, unadjusted per share	10.00	7.50	0.042	0.031
Net income adjusted	38.44	24.30	0.160	0.198

Note: Exchange Y240 to U.S.$1.

Copies of the annual report will be available to E.D.R. holders at the offices of Robert Fleming & Co. Limited (The Depositary), 8 Crosby Square, London, EC3A 6AN.

FF. 150,000,000—BIRD 7.25% LOAN 1972-87

Redemptions due on 15th June 1978, for which FF.7,500,000—is provided, have been made entirely by purchases in the market. After 15th June 1978 FF.135,000,000—of the loan will remain in issue.

Financial Agent: Banque de Paris et Des Pays-Bas
Pour le Grand-Duche de Luxembourg

EUROPEAN COAL AND STEEL COMMUNITY 9% 77-95 OF $US50,000,000

Notice to the holders of bonds of the issue 9% 77-95 of $US50,000,000—made by the European Coal and Steel Community.

The Commission of the European Communities announces that the annual instalment of bonds amounting to $US1,750,000 has been purchased for redemption on June 15, 1978.

FF. 75,000,000—GOVERNMENT OF NEW ZEALAND 7¼% LOAN 1972-1987

Redemptions due on 1st June 1978, for which FF.2,500,000—is provided have been made entirely by purchases in the market. After 1st June 1978 FF.65,500,000—of the loan will remain in issue.

Financial Agent: Banque de Paris et Des Pays-Bas
Pour le Grand-Duche de Luxembourg

B.A.T. INDUSTRIES LIMITED
NOTICE TO HOLDERS OF BRITISH-AMERICAN TOBACCO COMPANY LIMITED BEARER WARRANTS

The Scheme of Arrangement under Section 206 of the Companies Act, 1948, involving the merger of British-American Tobacco Company Limited with Tobacco Securities Trust Company Limited to form B.A.T. Industries Limited became effective on 23rd July, 1976, following approval by the Stockholders of both Companies and the sanction of the High Court of Justice.

In accordance with the terms of the Scheme of Arrangement the Ordinary Stock of British-American Tobacco Company Limited was cancelled and former Stockholders received 12 Ordinary Shares of 25p each and 1 Deferred Ordinary Share of 25p fully paid of B.A.T. Industries Limited for every £2.50 of Ordinary Stock of British-American Tobacco Company Limited formerly held. Shares of B.A.T. Industries were issued in registered and not in bearer form.

Holders of B.A.T. Co. Ltd. Bearer Warrants who have not yet, in accordance with the terms of the Scheme, surrendered their Warrants together with Talon No. 5 and Coupon Nos. 278-283 inclusive attached, to Morgan Guaranty Trust Company of New York, Coupon Department, 33, Lombard Street, London EC3P 3BH, should do so immediately in order that the appropriate number of Ordinary and Deferred Ordinary Shares of B.A.T. Industries Limited may be allotted to them. Fractions arising on allotment will be aggregated and sold in the market and the net proceeds distributed rateably in proportion to entitlements.

The right to allotment of B.A.T. Industries Limited shares under the procedure set out above will terminate on 23rd July, 1978, and will be replaced by a right to receive a cash payment in accordance with the provisions of the Scheme of Arrangement. Meanwhile the Warrants confer no further right on the holders and cannot be traded on the Stock Exchange.

By Order of the Board,
R. G. BAKER, Secretary.
Westminster House,
7, Millbank,
London SW1P 3JE.
2nd May, 1978.

THE ASSOCIATED PORTLAND CEMENT MANUFACTURERS LIMITED
NOTICE TO HOLDERS OF BEARER WARRANTS

NOTICE IS HEREBY GIVEN that the Seventy-ninth Annual General Meeting of The Associated Portland Cement Manufacturers Limited will be held at The Dorchester, Park Lane, London, W.1 (Ballroom Entrance), on Thursday, 25th May, 1978, at 12 noon for the purposes following, namely:
1. To receive the Report of the Directors and the audited Accounts for the year ended 31st December, 1977, and to declare dividends.
2. To re-elect the following directors who retire by rotation:
(a) Mr. J. S. Dutile
(b) Mr. B. E. Gavin
3. To re-elect the following directors who have been appointed since the last Annual General Meeting:—
(a) Mr. K. W. Court
(b) Mr. A. D. Stirling
(c) Sir Rowland Wright
4. To appoint Messrs. Parnell Fitzpatrick & Co. to hold office as Auditors of the Company until the conclusion of the next Annual General Meeting.
5. To consider and if thought fit pass the following resolution as a Special Resolution:
"THAT with the consent of the Department of Trade the name of the Company be changed to "Blue Circle Industries Limited."

By Order of the Board.
H. W. R. HAM, Secretary.
Portland House,
Stag Place,
London SW1E 5BJ.
2nd May, 1978.

In accordance with Conditions 16-19 of the Conditions of Issue endorsed on A.P.C.M. Stock Warrants a holder may attend and vote at the Meeting or may appoint a proxy to attend and on a poll vote instead of him. The proxy need not be a Member of the Company.

REGARDING OFFICIAL NOTICE OF 25th APRIL, 1978

concerning the loss of Warrant No. 42552. This has now been found, and this notice should be disregarded.
C. STEINWEG (Hamburg) GmbH
Chilehaus 2000,
Hamburg 1.

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PEARL ASSURANCE COMPANY LIMITED

"We have been able to make substantial increases in the bonuses of United Kingdom Policies."

Statement by the Chairman, Mr. F. L. Garner

At this time last year I reported upon changes which had taken place both in the membership of your board and in its overall structure. There have been no changes in membership since that time but one director, Mr A Moore, on reaching the age of sixty five joined the non-executive category. Mr A G Grant, the Company's Surveyor, retired at the end of October, 1977, concluding a long and distinguished career devoted to the Company's interests, for which I and my colleagues would like to record our appreciation. His deputy for many years, Mr S Bennett, was appointed in his place.

The Government having published some months ago a White Paper setting out suggestions for new legislation covering the role and responsibilities of company directors, many interested bodies are currently expressing views on the subject. Measures designed to combat the abuse of position or of privileged information must be welcomed, but there is a danger that efforts will be made to define general directorial responsibilities much too closely.

A board must be expected to take into account the interests of various parties. Since these include shareholders, customers and employees, inevitably those interests will at times conflict. It should however be left in no doubt that the overriding task of a board is to secure the efficiency and long term prosperity of the business, which is after all an essential to the well being of all parties concerned. This must be the common priority target of all directors, and it should not be weakened by putting the interests of different parties into the care of particular groups of directors.

It is to be hoped that no attempt will be made to lay down rigid rules as to the constitution of boards, and that it will be recognised that there is no one formula suitable to all types of enterprise.

LONG TERM BUSINESS

New Life Business

In the industrial branch our new business for the year was affected by the dispute with our agency staff to which further reference is made below. In consequence, new annual premiums fell for the first time for many years, from £15.0 million to £12.7 million. New sums assured also fell from £234 million to £190 million.

In the ordinary branch the effect of the dispute was much less marked. During the year we successfully introduced our new self-employed deferred annuity contract; as a result, annuities per annum increased from £5.7 million to £13.4 million but new sums assured fell from £363 million to £342 million. New annual premiums were up from £8.5 million to £9.0 million but annuity considerations and single premiums fell from £7.2 million to £5.2 million. The comparative figures for 1976 omit the South African business, which, as reported last year, was disposed of at the end of 1976.

The above figures exclude the new business obtained by our subsidiary Pearl Assurance (Unit Funds) Limited, which specialises in the issue of asset-linked policies. We introduced new sales methods during the year on an experimental basis. New annual premiums consequently increased from £7,000 to £255,000 (£210,000 after reassurance of the death risk with the parent company) and new single premiums from £175,000 to £1.2 million. In view of this success we are increasing the specialised sales force in 1978 and look forward to another large increase in premium income for our subsidiary.

Life Business in Force

The total life business in force at 31 December 1977 comprised sums assured and bonuses of £3,280 million, £1,348 million in the industrial branch and £1,932 million in the ordinary branch. A year previously the total was £2,990 million after excluding the South African and Canadian business. Annuities and bonuses amounted to £40.1 million per annum compared with £27.9 million. Combined premium income (including annuity considerations) was £130 million, £76 million in the industrial branch and £54 million in the ordinary branch, compared with £119 million. Total payments to policyholders in the form of claims, surrenders and annuity payments amounted to £84 million compared with £79 million for the previous year. Surrender payments increased from a total of £14.0 million to £15.7 million. While we are always sorry to see any policyholder lose some part of his benefit through early surrender of his policy, we feel that surrenders have been at a satisfactorily low figure in view of the pressure that inflation has exerted on savings during the year. In both branches the expense ratios have been reduced, from 40.51 to 40.02 per cent in the industrial branch and from 35.64 to 34.10 per cent in the ordinary branch (after exclusion of single premiums from the ratio). In the industrial branch this is not entirely a good sign, since it results from the reduction in new business and reflects the fact that expenses are proportionately higher in the first year of a policy. We must expect an increase in the expense ratio for 1978 when new business will, we hope, return to a normal level.

Overseas Life Business

As I announced last year we have disposed of our life business in Canada and in South Africa. This is reflected in our accounts this year, where an exceptional transfer out of the fund is shown in the ordinary branch account. Part of the sale proceeds has been added to the additional reserve in the ordinary branch account to strengthen the reserves and for the eventual benefit of UK policyholders. The remainder has been added to the surplus carried forward and will benefit future transfers to the profit and loss account.

These transactions leave us with an active branch in Central Africa, an agency in Israel and closed funds in East Africa and Sri Lanka, with a total premium income equivalent to £550,000 and total funds of some £5.5 million.

Life Valuations and Bonuses

The valuations of the life liabilities have been made in general on the same bases as for 1976. The dispute with the agency force terminated before the end of the year but certain of the effects cannot be fully quantified until well into 1978. We have considered it desirable to proceed on a cautious basis and to hold additional reserves for this reason. This has probably reduced our surplus for this year. In so far as the surplus for 1977 has been underestimated, a correspondingly higher surplus may be expected for 1978.

In the ordinary branch the surplus for the year is £26.2 million, £4.9 million more than in 1976. In spite of the need for caution, we have therefore been able to make substantial increases in the reversionary bonuses on United Kingdom policies. These have been increased by 15p to £3.95 per £100 sum assured or annuity (25p to £4.65 for pension business) for policies in force for less than five years and 25p to £4.50 (40p to £5.40 for pension business) for those in force for 5 years or over. We have also increased the supplementary bonus on self-employed deferred annuities, which was introduced for the first time last year. The terminal bonus has been increased from 1 per cent of the sum assured and bonus (1.30 per cent for pension business) for each year that the policy has bonuses attaching to 1.15 per cent (1.50 per cent for pension business), excluding the first three years. This reflects the continuation of our policy of distributing to policyholders part of the unrealised capital gains that have resulted from higher stock market prices and increases in the value of property investments.

The bonuses declared for the overseas territories are similar to those declared for 1976.

In the industrial branch the surplus for the year was £22.6 million, £3.2 million more than in 1976. Increased reversionary bonuses have been declared for the policies that have been in force for the longer periods and the terminal bonuses have been increased by amounts that are roughly equivalent to the increase granted in the ordinary branch.

SHORT TERM BUSINESS

Results

Premium income (excluding MAT and subsidiary companies) amounted to £33.2 million, an increase of £4.2 million (15 per cent) over 1976. There was a world-wide underwriting loss of £3.0 million compared with the 1976 loss of £2.6 million, the comparative revenue class losses being:—

	1977	*1976*
	£m	£m
Property	1.7	1.7
Motor	1.3	0.3
Liability	0.1	—
Other classes	0.2	0.2
Reinsurance treaties	0.3 (profit)	0.4
	3.0	2.6

Gross investment income amounted to £3.6 million compared with £3.2 million in 1976 giving a net trading surplus for the year almost unchanged at £0.35 million.

United Kingdom

Eighty seven per cent of our business was written in the UK. Premium growth at 15 per cent was down on the previous year (22 per cent) but it was satisfactory in the light of our agents' restrictive practices. The results, however, were again disappointing. In the motor account (44 per cent of the total premiums) the net underwriting loss amounted to £1.4 million due mainly to the poor claims experience in motor cycle business. The corrective measures taken in 1977 brought about a steady improvement in the claims ratio during the year but the relatively large amount of business written in the second half of the previous year produced a larger loss than in 1976. There is good evidence that there will be a significant improvement in motor cycle results in 1978.

The property account (43 per cent of the total premiums) consists mainly of householders' business and our claims experience on this continued to be poor in line with the market. The underwriting loss of £1.7 million was the same as in 1976.

Householders' business has, for a variety of reasons, been under increasing claims pressure in recent years and we have found it necessary to apply a rate increase in addition to other remedial measures. These will take some time to work through the account and to be fully reflected in the results.

Overseas

Our direct overseas interests (branches in Central Africa and Portugal and agencies in a few countries) contributed seven per cent of our premium income. The combined results showed a small underwriting profit and a trading profit of £0.2 million. The results of the Central Africa branch were particularly good and the management and staff did very well to achieve them in the difficult conditions in which they operate.

The run-off of our Canadian business continued satisfactorily. The small organisation we had maintained for this purpose was closed at the end of the year and the remaining run-off has been contracted out to another company.

Reinsurance Treaties

Business accepted under reinsurance treaties represented six per cent of our premium income. There was an underlying improvement in the results but the turnaround of £0.7 million was mainly due to a release of reserves arising from a change in the method of calculating earned premiums.

Marine, Aviation and Transport

The 1975 account was closed at the end of 1977 and showed a trading profit after taking credit for investment income. The open years' fund has been strengthened by a transfer from the closed year and a further transfer of £50,000 from the profit and loss account.

Subsidiary Companies

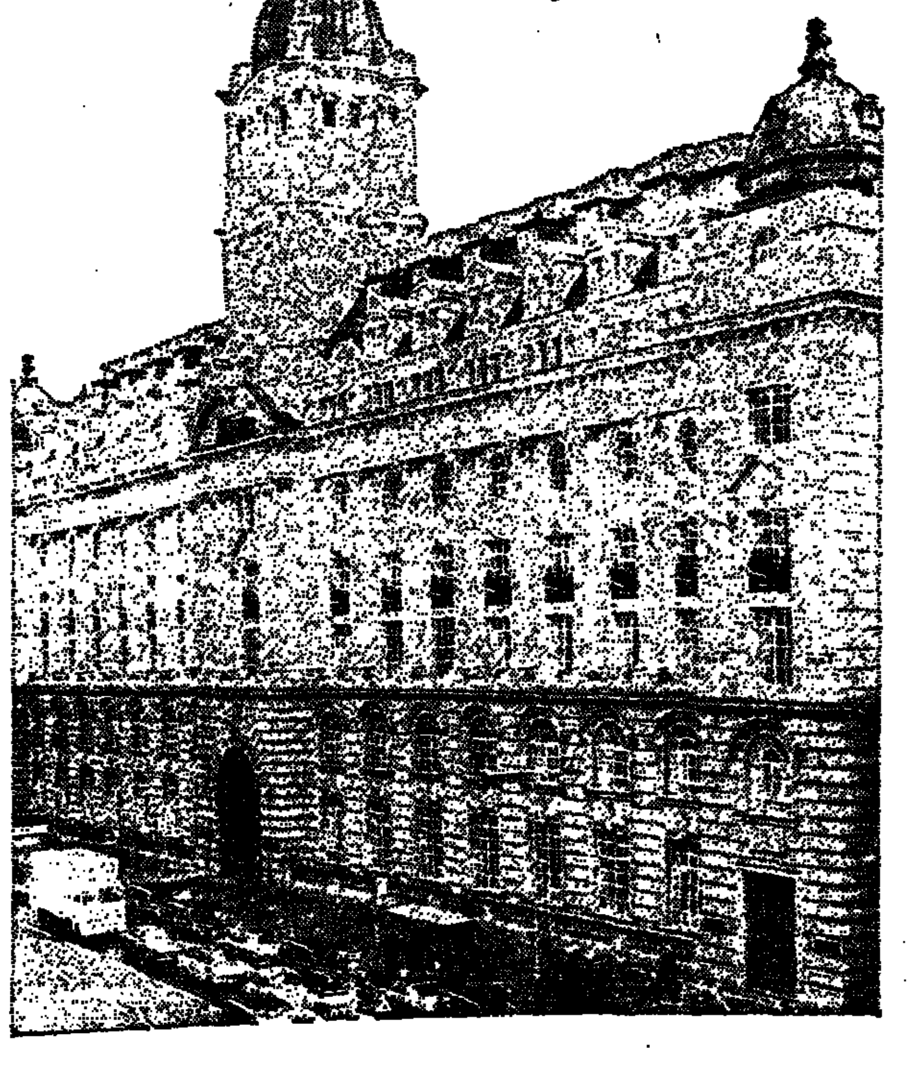
The combined premium income of our three subsidiary companies in Brazil, Portugal and the USA amounted to £17.6 million against £21.2 million in 1976. The decrease was due to conversion at a higher sterling rate and to pruning of unprofitable business in the US subsidiary.

'Monarca' in Brazil had another good year with a trading profit of £0.5 million. Provisional figures for the 'Portugal' indicate a deterioration in the results for the year and the outcome is likely to be a small trading loss.

In the 'Monarch of Ohio' there was a welcome reduction in the underwriting loss and the outcome for the year was a trading profit of £0.9 million. The results are still being adversely affected by the run-off of some of the cancelled "pools and associations" contracts referred to in my last report.

The trading profit figures mentioned above are the sterling equivalent of the results in the companies' local accounts.

Chief Office, High Holborn and over 450 District Offices throughout the United Kingdom.



INVESTMENTS

Separate balance sheets are shown for the long-term, short-term and stockholders funds and the supplementary statement given in the published accounts shows the comparative market values and balance sheet values of the investments of each fund together with the gross income earned. Total gross investment income at £91½ million showed an increase of £11 million over the previous year, £5 million attributable to gilt-edged stocks and £6 million to equity investment including real property.

At the year end short-term deposits in the United Kingdom amounted to £9 million compared with £19½ million the year before. Of such deposits £4½ million related to the long-term business and represented 0.5 per cent of the assets of the long-term funds.

During the year the gilt-edged portfolio was increased by over £45 million following the previous year's increase of some £28 million. Gross advances under house purchase mortgages totalled £12 million, with net lending amounting to £4½ million.

Net equity investment, mainly in United Kingdom shares, was again substantial and amounted to over £32 million. It will perhaps be of interest that of this figure £8½ million went directly into industrial and commercial companies raising new capital by means of rights issues, but the impression currently being fostered in some quarters that this is the only element of equity investment which serves a useful purpose must be dismissed. The buying of existing shares through stock markets provides the essential facility for the investor to realise his savings, whilst leaving the finances of companies undisturbed. If it were not for this facility, companies would be unable to raise the finance that they need.

The property portfolio showed little overall change for the year. Net acquisitions in the United Kingdom were unusually low at £1½ million and were counterbalanced by the disposal of our South African properties in connection with the transfer of our former life business in that country. Currently the forward property investment programme involves some £17 million.

Aggregating the totals for the past three years, £100 million has been invested in gilt-stocks, £98 million in equities and £18½ million in property.

The gross yields on the life funds were 10.14 per cent (1976 – 9.69) in the ordinary branch and 10.25 per cent (1976 – 9.74) in the industrial branch.

PROFIT AND LOSS ACCOUNT

The transfers from the long-term funds amount to £4,698,000 as against £3,956,000. There is also a transfer from the general branch account of £553,000 as against £567,000 and the transfer out to the marine, aviation and transport account has been reduced from £100,000 to £50,000.

Investment income on stockholders' funds for the year is £1,371,000. After allowing for other income, expenses and taxation, the net profit for the year is £5,617,000. In addition, the fund has been adjusted to take credit for what has proved to be an over-provision of £650,000 in tax arising from previous years' operations. From both these sources together, £750,000 has been transferred to the general branch reserve fund.

After the proposed increase in the dividend, the carry-forward has been increased to £4,177,000.

THE NEW STATE PENSION SCHEME

1978 is the year of the introduction of the long-advertised new state pension scheme. All employers with a pension scheme for their staff have had to decide whether to contract out of or to contract in to the new scheme. In the former case, and very often in the second case also, they have had to make extensive amendments to the rules of their scheme. This has involved those insurance companies, such as our own, who insure such schemes in a great deal of extra and unremunerative work. We have had to advise employers as to which decision is in their best interest and this is something that can only be decided scheme by scheme. The majority of our schemes are small ones and we have advised most of our policyholders to contract in. In the case of our own staff scheme, we have decided, after consultation with the trade unions representing the members, to contract out. It was a very finely balanced decision without, we consider, any marked advantage either way. During the last nine years we have made preparations to meet the changes proposed in connection with no fewer than three new national insurance schemes, two of them abortive. Even before the implementation of the latest, further amendments are being adumbrated. Whatever the merits of these amendments, and some are, at best, dubious, the primary requirement at present is for a period of quiet consolidation.

WILSON COMMITTEE

Your Company will of course be deeply interested in the conclusions reached by the Committee, and even more so in any changes of law or practice which may be proposed as a result. The insurance industry has given clear and full evidence to the Committee, drawing conclusions which we fully support.

Under the weight of overwhelming evidence to the contrary from all sides, the contention that Britain's poor performance in terms of industrial development and re-equipment has been due to the failure of investing institutions to provide finance is now accepted to be false, except by those to whom it is a vital part of a political proposal for the control of institutional investment. In furtherance of this proposal it is still being suggested in some quarters that the growth of pension funds and life funds has been or will be such as to give them too powerful a position in the Nation's affairs. This argument ignores the fact that the funds concerned are not one vast conglomerate, but a very large number of independent organisations each seeking to employ its assets to the best effect for its beneficiaries. To replace this situation with one giving ultimate control of the whole to one central body of some sort would be a strange answer to the basic criticism of concentration of power, even were that criticism valid. Certainly there is no evidence to suggest that investing bodies within the public sector have adopted a level of economic responsibility superior to that of the private sector.

I have no doubt that our industry will be ready to discuss any problems whose existence the Committee demonstrates, to see whether solutions compatible with our duties towards our policyholders, staff, and stockholders are available.

CONSUMER PROTECTION

The large majority of our policyholders in the ordinary branch and virtually all of those with premium paying policies in the industrial branch have participating policies. That is to say, they share between them 90 per cent of the surplus of the branch as disclosed by the annual valuation, only 10 per cent going to stockholders. We are therefore, in common with most of the life assurance industry, concerned on behalf of our customers as well as our stockholders. The present interest in consumer protection therefore accords well with our philosophy. However, we have always taken the view that the individual policyholder should not, by asking for costly exceptional treatment or attention, reduce the return to his fellow customers. Much of the current consumer-related legislation is in the direction of giving increased rights to the individual at the expense of the corporation. Whether the ultimate cost falls upon the shareholder or the other consumers (and, in our case, the additional expense must largely be met from money which would otherwise have been allotted as bonuses to policyholders) we consider that there is a tendency, particularly within the European Economic Community, for legislation in this direction to go too far, so that the interests of the majority of policyholders are prejudiced by the need arising from such legislation to indulge the over-demanding wishes of the minority.

INFLATION AND INCOME CONTROL

Inflation is perhaps potentially more damaging to life assurance than to any other type of business, in that it diminishes confidence in long term saving and makes the control of expenses in relation to premium income extremely difficult. It is of utmost importance to the Nation as a whole and to our industry in particular that the Government should succeed in its aim of containing inflation, and true success in this endeavour must involve much more than a mere reduction of the rate to the region of ten per cent.

However, where Government policy to this end takes the form of restrictions on pay increases, we do wish that the rules were thought out in more detail and published in a clear and comprehensive form. The present ill-thought-out policies create particular difficulties for companies like our own where some of the staff are remunerated wholly or partly by commission.

One reason for this is that the various phases of the recent pay policy have all laid down certain maxima for pay increases and these have inevitably become, in the eyes of all concerned, an entitlement. Thus, our district agents, who are paid partly by salary and partly by commission, thought it appropriate last year to press a claim for a salary increase of the maximum amount permitted by the pay policy. In fact, because life policyholders need to take out larger policies year by year to offset the depreciating value of the currency and because premiums on non-life policies should be increased each year in line with inflation, the total earnings of district agents, reflecting the consequently increased commission payments, had on average already increased by more than twice the maximum allowed to be paid to employees on fixed salaries. Further, to grant the claim unconditionally would, in our view, have damaged the competitive position of the Company and reduced the value of policyholders' savings.

Whilst we have always had the maximum regard for good industrial relations and a working environment free of disputes, we felt on this occasion that the agents' demands were unreasonable and we therefore resisted the claim. However, in the climate of the expectation generated by the pay policy, our agents took various forms of restrictive practices which persisted for nearly six months in furtherance of their claim. One effect was the greatly reduced industrial branch new business written during the year. The loss of new premium income will reduce the growth in the value of your Company in future years but not to any serious extent.

A dispute of this nature must tend to strain relationships between field management and agents but we are confident that following the settlement achieved at the year end the vast majority of our staff now want to put the events of last year behind them and wish to restore the harmonious relationships that previously existed enabling everyone, together, to get on with the job of making up the ground which we lost last year. Our aim is to help and encourage them to do so.

TRIBUTE TO THE STAFF

The agents' industrial action caused additional work and inconvenience, as well, in some cases, as loss of pay to those members of the staff not involved. I should like to express my appreciation of the considerable additional effort which many of them contributed during the action and, most particularly, during the period at the beginning of this year when the arrears of outstanding work had to be cleared up, and also of their loyalty to the Company in a difficult period. I should also like to express my pleasure at the underlying goodwill between all members of staff which has facilitated, with very minor exceptions, the general return to normal working.

The Annual General Meeting of the Company will be held on May 24th at 12 noon at the Registered Office, High Holborn, London WC1V 7EB.

EXTRACTS FROM 1977 ACCOUNTS

	1977	*(1976)*
✻ New Life Premiums per annum	£21.7m	(£23.5m)
✻ New Life Sums Assured	£532m	(£597m)
✻ Life Premium Income	£130m	(£119m)
✻ Life Surplus allocated to policyholders	£42.3m	(£36.6m)
✻ Assets of Long Term business		
— Balance sheet value	£929m	(£862m)
— Market value	£1,368m	(£1,042m)
✻ General Branch premium income	£33.2m	(£29.0m)
✻ General Branch underwriting result	£3.0m loss	(£2.6m loss)
✻ General Branch trading result	£0.5m profit	(£0.5m profit)
✻ Assets of Short Term business		
— Balance sheet value	£61.0m	(£54.9m)
— Market value	£83.0m	(£66.2m)
✻ Profit and loss account income (net transfers plus investment income less taxation)	£5.6m	(£4.7m)

✻ Total assets of the Group increased by £73 million to £1,021 million

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Finance houses back Leyland in car hire-purchase plan

BY TERRY DODSWORTH, MOTOR INDUSTRY CORRESPONDENT

BRITISH LEYLAND'S first concerted attempt to hit back at the numerous cheap finance schemes offered by car-importers is launched to-day in collaboration with seven finance houses.

The plan offers new car buyers a flat rate hire-purchase charge of 7 per cent. over 12 months—a real rate of 13.4 per cent.—and 7.5 per cent. for 24 months, real rate 14.7 per cent.

This is probably about 4 percentage points lower than most motorists could negotiate privately, and is the first long-term cheap rate plan offered by one of the big four British car manufacturers.

Leyland's incursion into the cheap finance field is designed to maintain the sales momentum it achieved in Britain with its Superdeal sales promotion campaign in February and March.

Much of the growth in the U.K. market this year has come from private, as opposed to company, sales, where the cost of finance available in the dealer's showrooms is a vital factor in the buying pattern.

Until this scheme many of Leyland's 2,200 dealers have been unable to offer loans as cheap as those for imported cars, giving the importers a considerable advantage in the private market, Leyland's traditional strength.

Several importers will still undercut Leyland in some areas.

But while most such campaigns are limited in time or scope, Leyland's Carcredit plan is for its whole range and will run indifinitely, with rates reviewed every three months to ensure that interest rates are kept "below the national average."

The seven finance houses in the Leyland Carcredit plan are Mercantile Credit; Lombard North Central; Forward Trust; North-West Securities; Bowmaker Finance; United Dominions Trust; and Lloyds and Scottish.

All have agreed to offer the new standard rate to Leyland dealers, but will continue to compete normally with each other for business.

Mr. Cedric Scroggs, Leyland marketing director, says they entered the scheme because the company will run a promotional campaign worth about £200,000 this summer, which should help them win business.

Economics group forecasts 12% rise in car imports

BY OUR MOTOR INDUSTRY CORRESPONDENT

CAR IMPORTS to the U.K. will go up this year by 12 per cent. compared with 1977, according to a new study by the Economic Models forecasting company.

All of this increase will be caused by the growth in the market this year rather than any improvement in the penetration of imports, the study adds.

It expects the import penetration rate to stay at 45 to 50 per cent., partly because the fear of import quotas and other trade restrictions will lead foreign car manufacturers "to tread carefully in the U.K. this year."

Economic Models takes a less optimistic view of the total market for the year than the recently revised forecast of the Society of Motor Manufacturers and Traders, which represents the general view of the vehicle producers.

It puts sales at 1.5m. units for the year against the society's prediction of 1.6m. The 1.5m. total is more in line with the views of some component manufacturers and vehicle distributors, who believe that demand will begin to tail off after the summer buying season.

In the longer term, Economic Models expects a slight contraction in both demand and production next year, but strong growth returning in 1980, with sales expected to reach 1.6m. cars by 1983. Production and exports are expected to improve this year by 9 per cent. or 8 per cent. respectively.

Commercial vehicle sales are also expected to improve this year by 5.5 per cent., followed by a small slowdown in 1979.

The outlook for car demand in the leading European markets is for some weakening this year.

'Buy British' proposal

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

BRITISH companies should be encouraged to display prominently the name of the country in which their goods are manufactured.

The idea is being developed as part of a Government campaign to reduce the quantity of goods imported into Britain. Ministers hope that if the country of origin is written clearly on goods alongside a British brand name, people might be inclined to opt for local-made goods.

Industrialists will discuss the idea with Ministers and union leaders at the monthly meeting of the National Economic Development Council to-morrow.

Their talks form part of the Government's industrial strategy programme which is partly aimed at identifying factors other than price levels which affect the amount of goods imported into the U.K.

This coincides with the creation of a special Cabinet Committee of senior economic Ministers, which is considering ways of promoting a "Buy British" campaign.

The committee is working closely with the National Economic Development Office. One of its members is Mr. Eric Varley, Industry Secretary, who, along with Mr. Denis Healey, Chancellor, has submitted a paper on import penetration to to-morrow's meeting.

The paper justifies the idea about displaying the name of the country of origin on goods by saying that there are frequent complaints from members of the public about how difficult it is to find out where goods are made.

It is also suggested by the Ministers that industrial customers and producers should be brought closer together so that they understand each others' needs better.

This is emerging as a regular theme in the reports of the industrial strategy's sector working parties, which say that customers do not always know what British goods are available while the producers do not sufficiently understand their customers needs.

The paper also suggests that major companies should be asked to explore whether more of their purchases could be made within Britain, especially from small and medium sized companies.

During the council meeting, there will also be a discussion on communicating the ideas of the industrial strategy down to individual companies and on how the Government's transport policies can help the strategy.

● NEWS ANALYSIS—BATTERY MERGER

Ready for a breakthrough

BY MAX WILKINSON

HAWKER SIDDELEY'S plan to connect up with the battery manufacturing interests of Carlton comes at a time when all manufacturers in the field are on the threshold of important technological changes.

The chance of a real breakthrough in the development of much more efficient high-capacity batteries now appears to be running at about even odds.

Only a few years ago, most researchers believed the chance of developing an acceptable substitute for the familiar lead-acid battery was quite small.

Now, the possibility of producing batteries as the main power source for a wide range of electric vehicles by the middle of the next decade is exercising all manufacturers.

As soon as electric-powered vehicles became competitive with diesel lorries, an enormously increased market would be opened up for the battery makers.

On the other hand, the heavy research costs will give the main advantage to the larger companies, at the expense of the smaller.

The key to this development is the sodium-sulphur battery, being developed mainly by Chloride in the U.K. It works at a temperature of about 300 deg. C.

Against this disadvantage, the sodium-sulphur battery can offer some four to six times the capacity of its more conventional rival.

Hawker's £23m. offer for a controlling share in Carlton must, therefore, be seen against the major changes looming in an industry which has enjoyed technical stability for many decades.

Hawker is proposing as part of the deal that Carlton should buy its Crompton Parkinson battery business which would be added to Carlton's subsidiaries, Oldham and Tungstone.

Such a re-grouping would clearly make sense from a research and development point of view, and it could also lead to some rationalisation in the manufacture of batteries for cars and lorries.

A further spur towards rationalisation may be provided by the relatively depressed state of the U.K. motor car manufacturing industry.

This factor is, however, of indirect importance to Hawker and Carlton, because neither company enjoys very high sales to manufacturers.

Total sales of batteries for automotive use (cars and lorries) are now running at about 6.8m. units a year, worth about £150m. Just under 2m. batteries are sold to vehicle manufacturers.

Chloride, the U.K. market leader, has about 48 per cent. of this market, followed closely by Lucas with 45 per cent.

Oldham has about 2 per cent. and Crompton only about 1 per cent.

In the larger market for replacement batteries, Chloride has about 30 per cent., Lucas 13 per cent., Oldham 12 per cent., Tungstone 12 per cent., Crompton 3 per cent., and others, including importers, about 32 per cent.

The combined Oldham, Tungstone and Crompton group could therefore command 25 per cent. of the replacement market, while Crompton is too small to be a significant force on its own.

The other main market for batteries is for industrial uses ranging from fork-lift trucks to standby power for hospitals and power stations.

This market is worth about £68m. a year, of which about £40m. is accounted for by batteries for motive power.

In the motive power section, Chloride has 65 per cent. of sales, followed by Oldham with 18 per cent. and Crompton with 13 per cent.

Tungstone has about 37 per cent. of the £6m. market for lead-acid batteries for standby power against Chloride's 63 per cent. A further £12m. of sales is taken by manufacturers of nickel-cadmium batteries.

Another £4m. of business is sales for defence applications. Most of this somewhat specialist market is taken by Chloride.

Overall, the battery industry is one of the more successful parts of the U.K. manufacturing scene.

One reason is that Chloride, with plants throughout the world, is one of the three major companies internationally.

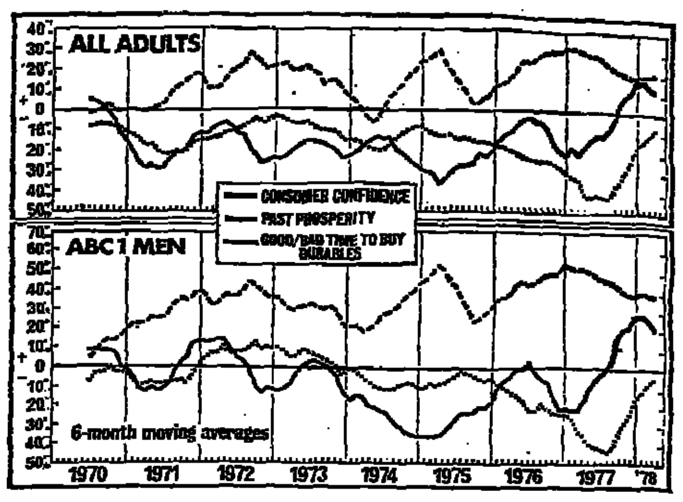
It exports about 30 per cent. of its U.K. production, mainly to Europe. Oldham exports about 17 per cent. of production

While the prospects of sodium sulphur batteries must dominate strategic thinking for the next decade, the future of lead-acid batteries is by no means gloomy.

FT SURVEY OF CONSUMER CONFIDENCE

Budget revives optimism about Britain's future

BY STUART ALEXANDER



OPTIMISM about the future among Britain's consumers improved after the Budget, according to the latest survey of consumer confidence carried out for the Financial Times.

But the buoyant feeling was more marked among lower income groups, where there is general agreement that people are "getting more money" than among ABC1 groups, where there has been a slight turn to pessimism.

Fears of unemployment have eased slightly, confidence in the Government is reduced, and about 49 per cent. are likely to spend rather than save any increased income as a result of the Budget.

Optimism

Although the Budget has helped, however, there still has not been a return to the level of optimism expressed in January. Fears of unemployment reversed the trend in February and, even this month, 35 per cent. of the 975 adults interviewed thought that unemployment was likely to increase, compared with the 15 per cent. who thought that unemployment would decrease.

The Past Prosperity Index shows an improvement in April of 1 per cent. to minus 1 per cent., showing that 29 per cent. of families thought that they were better off than a year ago; 30 per cent. of families thought that they were worse off.

The index was highest among ABC1 women and the 15-34 age group but has fallen away by 2 per cent. among ABC1 men.

However, the index compares well with 1976 when the gap was minus 26 per cent. and March, 1977, when the gap was minus 50 per cent.

While the monthly figure has fluctuated in the first four months of this year, the six-monthly average now stands at minus 10 per cent., having risen steadily for almost a year. It has reached its highest point since February, 1973.

The number of people who felt as well off as a year ago, or who answered "don't know," rose by 5 per cent. to 41 per cent.

As usual the most prosperous are the 15-34 age group and, regionally, those in the North-East and Scotland feel slightly better off, while those in the North-West and Yorkshire feel worse off.

Future confidence also shows its first increase since January, by 5 per cent. to 12 per cent. Main reasons given by the overall 31 per cent. who expect things to improve are that compared with the 19 per cent. who do not, are "things must improve," people are getting more money and inflation is being controlled.

The problem of inflation is, however, causing more worry. Only 14 per cent. of the optimistic respondents say that their belief that inflation is under control is the reason for their optimism. That compares with 20 per cent. in January.

Belief in the Government, too, has dropped to 12 per cent., compared with 14 per cent. last month. Help from North Sea oil was mentioned by only 13 per cent., compared with 22 per cent. in both January and February.

Interviewed

Among the pessimists, concern about the Government has increased, with 25 per cent. giving that as the reason for their pessimism, compared with 17 per cent. in March and 10 per cent. in February.

The unemployment problems concerns 12 per cent. for the third month running, while rising prices were mentioned by 24 per cent. in April, compared with 30 per cent. in March. Unions or strikes were mentioned by 9 per cent., compared with 13 per cent. in March.

Double the number of people interviewed thought it was a good time to buy major items for the home than thought it was a bad time. The 46 per cent. who thought it was a good time compares with 44 per cent. in March but 48 per cent. in January and February.

The overall index rose 4 per cent. in April to 23 per cent., helped by men of all social grades all thinking it was good time to buy.

Among ABC1 men, 62 per cent. thought it was good and among C2DE men, 46 per cent.

This was also reflected on an age basis where the main rise of the month was among those aged 35-54 who showed a difference of 32 per cent., compared with 22 per cent. last month.

The unemployment prospects index has improved by 1 per cent. overall in April, with 35 per cent. thinking it will increase and 15 per cent. thinking it will not, leaving a gap of 20 per cent. compared with 21 per cent. last month.

Question

An additional question on how people would use the Budget tax reduction showed that an overall 49 per cent. intended to spend it, 12 per cent. to have it and 23 cent. said they would receive no benefit.

A further 15 per cent. said they did not know what they would do with any extra money.

Rail fares unlikely to rise

BRITISH RAIL, which presents its annual report on Thursday, is expected to announce that its fares are unlikely to go up for the rest of this year.

The number of passengers using the railways has increased by three to four per cent. over the past year, continuing the trend set in the previous year.

The continuing rise together with lower inflation and the recent acceptance by the rail unions of a 10 per cent. increase has made stable fares until the end of 1978 much more likely.

'Borrowing mechanism should be simplified'

By Colin Millham

LOCAL AUTHORITY borrowing methods are in drastic need of simplification, according to City money brokers Butler Till.

The firm says: "The system is weighed down with controls, regulations and restrictions, some of which are petty, to say the least; one has been piled on another without assimilation and many derive from ancient practice which modern legislators are loath to amend because they do not fundamentally understand either the origins or the implications."

This conclusion is reached in a revised handbook entitled Money Services for Local Authorities, published to-day. First produced by Butler Till in 1972, it is now printed in its third edition, and deals mainly with day-to-day borrowing operations.

Reorganisation of local government several years ago concentrated local authority debt—which now exceeds £30bn.—in the hands of 547 authorities instead of about 1,800, and was accompanied by revised borrowing provisions contained in various Acts.

The new powers on borrowing contained both good and bad points, but Butler Till contends that the opportunity now exists for a further simplification of techniques.

Extensive statutory controls have been added to, developed, and changed over many years, and a voluntary code has now been introduced by local authorities, which Butler Till says will without question have a sharp effect on borrowing patterns.

A complete chapter deals with the implications of statutory and voluntary codes of practice, but the firm suggests that what is really needed is a sweeping away of the whole of the present code and the substitution of a simplified code.

Butler Till has produced its own borrowing code, which is a further development of ideas put forward six years ago. But progress towards its adoption can hardly be said to have swept the country.

It is claimed that the proposals, if adopted, could bring about a substantial rationalisation of local authority practice and result in a far better understanding of what local authority borrowing is all about.

LABOUR NEWS

APEX may end Grunwick strike soon

BY PAULINE CLARK, LABOUR STAFF

THE 22-MONTH STRIKE at the Grunwick film-processing factory in North London is likely to be called off by union leaders within five weeks.

The death knell of the strike over union recognition was sounded at the week-end at the annual conference of the Association of Professional, Executive, Clerical and Computer Staff as delegates overwhelmingly rejected a call for resumption of mass picketing and for blacking of all essential services to the company.

The chances of the strike continuing seem slender. Mr. Roy Grantham, the general secretary, told delegates at Eastbourne, that unless the Government Advisory Conciliation and Arbitration Service recommended union recognition at Grunwick within four or five weeks, the union would have to call it off.

Since the Law Lords' ruling late last year invalidating the original ACAS recommendation on union recognition, the Service has continued to try to arrange a further survey of workers' opinions on the issue in the factory.

But little progress seems to have been made, and the official word from ACAS yesterday offered the strikers little hope of a solution before the union's deadline. The Service was continuing "in constant touch with both sides through meetings and letters."

It is known to have been presented at the first meeting with the company after the Lords decision with a workers' petition asking it not to subject them to a further test of opinion.

In the absence of a further survey, and another recommendation from ACAS, it is up to the union to decide whether to withdraw its reference under Section 11 of the Employment Protection Act and release the Service from its obligation to pursue the issue.

The conference of the 146,000-strong union overwhelmingly rejected a proposal that the executive be censured for its conduct in the dispute, in which there were violent clashes between picket line and police last summer, and a series of court cases on ACAS's role on the recognition issue.

Mr. Grantham said that if ACAS did recommend recognition within five weeks, the union would fight "with all its strength." But the executive did not propose to pursue it beyond that point.

If the strike were called off, APEX would help the dismissed Grunwick workers find other jobs.

The conference called on the Government to introduce amending legislation on ACAS's role in such disputes "in line with the spirit and intent of the original legislation."

Opening the debate on the economy, Mr. Grantham appealed for a new "understanding" on pay between trade unions and Government. What was wanted, he said, was a more flexible formula, and not a situation in which TUC and Government must fight rigid norms.

Plea to Murray on gallery row

AN APPEAL is to be made to Mr. Len Murray, TUC general secretary, to intervene in the inter-union dispute which threatens to close London's Tate Gallery on Sunday.

Mr. Joe White, Transport and General Workers' Union shop steward at the Tate, said: "I shall be writing to Len Murray to ask him to intervene."

Mr. White claimed that by the week-end, 130 of the 134 workers at the gallery would have left the Civil Service Union and joined his union.

Employees at the Tate—including security workers and cleaners—plan to hold a meeting to-morrow to decide whether to strike on Sunday and close the Tate for the day.

They want the gallery management to recognise the transport union as the negotiating body for Tate workers.

Second thoughts

UNION LEADERS representing 800,000 building workers will meet on Friday to see whether they should have second thoughts on a pay deal. Ten days ago, negotiators for the construction workers' union, the Transport and General Workers' and General and Municipal Workers' Union seemed prepared to urge acceptance.

'One union' plea

The present inquiry into bank staff representation should propose the formation of a single union in each of the five London clearing banks, Mr. Eddie Gale, general secretary of Barclays Group Staff Association has said.

Reply expected from Thomson journalists to-day

BY OUR LABOUR STAFF

JOURNALISTS sacked by Thomson Regional Newspapers in Hemel Hempstead Hertfordshire, are expected to reply today to management proposals for settlement of their pay and productivity dispute. Meanwhile National Union of Journalists leaders are preparing for further action elsewhere in the group's newspapers from to-morrow.

The 77 NUJ members in Hemel Hempstead were dismissed early last week for working to rule and are demanding pay for the period they were not working.

After the sacking of a further 310 journalists in Cardiff, Middlesbrough and Reading in the past three days because they refused to resume normal working, the NUJ decided at an emergency executive meeting on Friday to order a further 236 Thomson employees to start a retaliatory all-out strike from to-morrow.

The journalists involved at Newcastle upon Tyne and South Wales, are said by management to have already effectively withdrawn their labour for a week while they held prolonged mandatory union chapel meetings.

The row over pay within the group led last week to a 24-hour protest strike in support of Hemel Hempstead by more than 3,000 Thomson journalists, although papers continued to be produced by editors.

The group said yesterday that it was "disappointed" at the NUJ's plans for further industrial action while new proposals were being considered at Hemel Hempstead.

Bargaining rights deal

TRADE UNION bargaining rights for permanent off-shore oil production platform workers have been negotiated by the Association of Scientific, Technical and Managerial Staffs.

The union said yesterday that the agreement, with Phillips Petroleum for about 100 supervisory, technical and operation staff in the North Sea, had been reached after a ballot conducted by the Advisory, Conciliation and Arbitration Service.

All previous union agreements in the North Sea had been limited to supply and construction workers, the union said.

● To-morrow is the deadline for the union membership ballot for oil company employees on the Occidental Piper platform. It is expected the result will be known by the week-end.

FILM AND VIDEO — BY JOHN CHITTOCK

Video disc jockeying

FUTUROLOGY in the audio-visual business has dominated the minds of nearly everyone who has to make financial decisions in the industry. The past 15 years has witnessed great changes: once it was simple old industrial films; but the rise of audio-visual aids generally—and of video in particular—has extended the field of vision to the point when anything that moves or forms an optical image is fair game if it involves information, technology, education, promulgation or money.

Despite the changes, especially those of the past few years, the frustrating thing about this dramatic progress is that still no one really knows where it is leading. The promised videocassette revolution inches (or centimetres) itself tantalisingly nearer—without actually arriving. Undoubtedly there is now no way of avoiding it, as the JVC VHS system and Sony's rival Betamax begin to add a new dimension of marketing power to the industry. But the potential of the video disc—which is to videocassettes what the audio disc is to tape—continues to confuse the issue.

The video disc has yet to arrive on a significant commercial scale, but this could start to happen at the end of the year when Philips and MCA test market their VLP system in the U.S. Meanwhile, as the videocassette gains ascendancy, no one seems sure any longer whether the two technologies will complement each other or fight it out to the death—with broadcast television, the commercial cinema and 16mm. film becoming unwilling participants in the contest.

An attempt to shed a glimmer of light on this audio-visual scene comes later this week with publication of the results of a survey carried out by *Screen Digest*. A cross-section of its subscribers (who are mostly in the media industries) expect videocassettes to show exceptional growth during the next three years—with rental of recorders dominating in Britain. The reasonable view prevails that video discs will take longer to arrive, with some ½m. players in Britain by the mid-1980s.

One respondent in Nigeria puts the whole matter into perspective, however, by predicting exceptional growth there for flannel and magnetic boards.

In the U.S., video discs have been the specific subject of a survey carried out by the Society of Motion Picture and Television Engineers. The main reported conclusion of the preliminary findings is that the developers of video discs have vastly different ideas from the end users about how the technology will be used in industry. Apart from its entertainment potential, the video disc will provide an exceptionally convenient way of storing visual information — with almost instant access to any one of over 40,000 colour pictures. According to the SMPTE survey, potential users want greater versatility in interfacing the disc with related services than the manufacturers currently intend to provide.

Information

The video disc clearly has great possibilities if integrated into an information chain. Hospitals could store x-rays in a fraction of the space currently occupied by film, and in an ideal world could yield instant access via closed circuit television to any point in the building.

In the popular role of video discs — replaying programmes on a TV screen—the medium offers almost infinite life compared with videocassettes, occupies negligible shelf space, and promises to cost anything from one quarter to one tenth the price of the pre-programmed videocassettes.

It seems probable that in the end the two technologies will survive side-by-side in affluent homes at least, with videocassette machines being used mainly for user-recording of TV programme and video discs as a relatively cheap source of pre-programmed material.

Adding to the confusion in the meantime are the claims of varying credibility from up to 30 rival video disc systems. Although most experts now believe that the Philips/MCA will be the winner, RCA and Thomson-CSF have attractive and non-compatible video disc systems. Of the others, two new entrants in the race cannot be lightly dismissed—Matsushita and IBM. The latter is a completely dark horse whose existence became known only last week.

Yet the video disc manufacturers do seem to agree that they must solve the conflict of standards produced by their rivalry—an agreement typified by their co-operation in the Video Disc Study Group of the Society of Motion Picture and Television Engineers. Even Sony's chairman, Mr. Akio Morita, admitted to a degree of open-mindedness when he was in London recently for the Betamax launch. When I questioned him about Sony video disc plans—they have revealed none so far—his answers left the door open for Sony to adopt someone else's video disc system, which would be a major reversal of Sony's usual style.

The U.K. has not been backward in seeing the potential for video discs. Although there have been British-developed systems abandoned on the way (including the world's first in 1928, from John Logie Baird), activity in the U.K. has centred on programming and entrepreneurial schemes.

Even if this accelerating journey down the audio-visual road begins to yield more questions than answers, there is a feeling of great excitement in the business. In response to the *Screen Digest* survey, optimism abounds. Most rapid growth predicted will be in the use of these media in training and education. There are other new opportunities so far unsurveyed, notably in the Third World — which must become a huge customer for audio-visual hardware and media. Britain has particularly well-developed connections here in supplying programmes, information and services—even though our greatest hardware export may turn out to be flannel boards. It is a general area of export potential and political influence that the British Government might do well to examine.

APPOINTMENTS

Reed International executive changes

REED GROUP LIMITED, the European paper and packaging division of Reed International, has made the following senior executive appointments.

Mr. C. B. Warmington, deputy chairman of the paper division and a director of Reed Group, has become deputy chairman of the Board of Reed Group. Mr. A. R. Chalk, managing director of Spicers, Mr. E. Doorbar, chairman and chief executive of Spicer-Cowan, and Mr. J. Hubbard, managing director of Reed Medway Division, have joined the Reed Group Board.

★

Mr. S. T. Graham has been elected chairman of the MIDLAND BANK TRUST COMPANY in succession to Lord Helsby, who has retired from the Board. Mr. J. Cox has become deputy chairman. Mr. Graham is a director and a chief general manager of Midland Bank and Mr. Cox is a senior general manager, Midland Bank.

★

Mr. David Simpson has been appointed chief executive of HERITABLE INDUSTRIAL HOLDINGS, a subsidiary of the Heritable and General Investment Bank. Mr. Simpson was until recently director of manufacturing Leyland Cars and managing director designate of Pressed Steel Fisher.

★

Mr. J. S. Cumming, Mr. G. G. L. de Geer, Mr. R. A. Hambro, Lord Irwin, Mr M. V. St. Giles, Mr. I. L. Schmiegelow and Mr. A. F. Steel have been appointed directors of HAMBROS BANK.

★

Dr. Gordon Taylor is to be the next chairman of the London Transport Committee of the GREATER LONDON COUNCIL. He will succeed Mr. Harold Mote, who becomes chairman of the Council on May 16.

★

Mr. J. A. Buckle, chief accountant of IMPERIAL FOODS, has been appointed to the Board as finance director.

★

Mr. M. R. Osborne has been appointed a director of NORMAN FRIZZELL MOTOR AND GENERAL.

★

Mr. F. L. Carroll has retired as chairman and director of POLARIZERS (UNITED KINGDOM).

★

Mr. D. B. Egerton has been appointed a director of HARRISONS AND CROSFIELD.

★

Mr. Alastair Robinson has been appointed an executive director of MERCANTILE CREDIT COMPANY. Mr. Reginald Rees, an executive director, retires on June 30.

★

Mr. John L. Robinson has joined LCP HOLDINGS GROUP as group financial controller.

★

Dr. M. S. Wooding is to become chairman of CHARLES EARLY AND MARRIOTT (WITNEY) from July 12 on the retirement of Mr. A. D. Hopkins.

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★

Mr. John Baxter has been appointed company chief engineer of TRIPLEX SAFETY GLASS. He was previously with Courtaulds.

★

Mr. John C. Hayward has been appointed to the Board of GARTON ENGINEERING and continues as company secretary.

★

Mr. Derek Nightingale has been elected president of the BRITISH TEXTILE EMPLOYERS' ASSOCIATION in succession to Mr. Edmund Gartside. Mr. James Haston has become treasurer in place of Mr. Fred Dunkerley.

★

Mr. G. R. Jefferson, chairman and chief executive of British Aerospace Dynamics Grp, has been elected a Fellow of the City and Guilds of London Institute, British Institute of Management, and Council of Engineering Institutions.

★

Mr. Michael Ness has joined the Board of GT MANAGEMENT (U.K.).

Businessman's Diary

U.K. TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
May 7—10	Incentive Marketing and Sales Promotion Exbn. and Conference	Metropole Centre, Brighton
May 8—10	Engineering Teaching Equipment Manuf. Assoc. Exbn.	West Centre Hotel, W.1
[illegible]—12	Electronic Test and Measurement Equipment Exbn.	U.S. Trade Center
[illegible]—12	Int. Welding Engineering Exbn. and Conf.	Harrogate
[illegible]—12	International Diecasting Exhibition	Olympia
May [illegible]—11	European Computing Congress and Exbn.	Wembley Conf. Centre
May [illegible]—17	Meat Trades Fair	Alexandra Palace
May [illegible]—17	Int. Domestic Electrical Appliances Trade Fair	Nat. Exbn. Centre, B'ham
May 15—[illegible]	Materials Handling and Factory Equipment Exbn.	Belle Vue, Manchester
May 16—[illegible]	Specibuild (building products) Conf. and Exbn.	Olympia
May 21—[illegible]	Int. Conf. and Exbn. European Cellulose and Paper Assoc.	Connaught Rooms, W.C.1
May 24	Business to Business Exhibition	Horticultural Halls, S.W.1
May 31—June 3	Royal Bath and West Show	Shepton Mallet
June 5—8	British Hospitals Exhibition	Olympia

OVERSEAS TRADE FAIRS AND EXHIBITIONS

May 6—11	International Book Festival	Paris
May 8—11	Offshore Technology Conf. and Exbn.	Houston, Texas
May 8—12	Int. Technology Exchange Fair	Utrecht
May 9—11	Compec Europe	Brussels
May 9—14	Int. Surface Treatment and Finishing Exbn.	Paris
May 13—20	Woodworking Machine Exhibition	Milan
May 16—20	Welding Fair	Zagreb
May 19—27	Public Works Exhibition	Paris
May 28—June 1	Int. Industrial Equipment Exbn.	Brussels
June 4—8	Israel Technology Week	Jerusalem
June 12—16	World Congress on Automatic Control	Helsinki
June 13—21	Int. Rubber and Plastics Conf. and Exbn.	Paris
June 15—18	Solar Energy Exbn. and Congress	Genoa

BUSINESS AND MANAGEMENT CONFERENCES

May 4	Westminster Chamber of Commerce: First Annual Conf.	London Hilton, W.1
May 4	British Institute of Management: Management of Product Design and Innovation	Royal Lancaster Hotel, W.2
May 6—9	National Chamber of Trade: Annual Conference	Llandudno
May 7—13	Keith Shipton Developments: Risk Management in Practice	Tower Hotel, E.1
May 8—9	Financial Times: The 1978 Euromarkets Conference	Royal Lancaster Hotel, W.2
May 9	The Industrial Society: Profit Sharing—Employee Share Ownership	Quaglino's, S.W.1.
May 9	AGB Conference Services: Executive Stress	Inst. of Directors, S.W.1
May 9	Oyez: International Transfer Pricing Policies	London Press Centre, E.C.4
May 9—10	Zinc Development Association: Die Casting Conference	London Hilton, W.1
May 9—11	Shirley Institute: Textile industry—protecting the environment, producer and consumer	Manchester
May 9—12	British Association for Commercial and Industrial Education: Job Analysis	BACIE Train. Centre, London
May 10	Oyez: Tax and Property	Hotel Inter-Continental, W.1
May 10—12	Advanced Management Research (AMR): Management Skills for Women	Churchill Hotel, W.1
May 15—19	Kepner Tregoe: Decision Making for Senior Management	Perry Hall Hotel, Bromsgrove
May 15—16	Financial Times: The North Sea and its Economic Impact	Grosvenor House, W.1
May 16	European Study Conferences: The Finance Bill 1978	Royal Lancaster Hotel, W.2
May 16	Inst. of International Licensing Practitioners: Nuts and bolts of technology transfer	Imperial College, S.W.7
May 16	British Plastics Federation: Plastics Component Engineering	RAPRA, Salop
May 16—17	AMR International: Project Financing	Portman Hotel, W.1
May 17—18	Oyez: Successful accomplishment of giant projects	Hilton Hotel, W.1
May 23	CAM Foundation: Media Solutions to Marketing Problems	48, St. Martin's Lane, W.C.2
May 23	Oyez: Annual conference for Landowners, Farmers and their Advisers on Tax and Financial Planning	Savoy, W.C.2
May 23	Westminster Chamber of Commerce: Seminar on Exporting	Café Royal, W.1
May 23—26	Marchmont: International Tax Planning Conf.	Barbados
May 24	Imperial College: International Finance	London, S.W.7
May 24	British Institute of Management: Cost savings through materials handling	Tickled Trout Hotel, Preston
May 24—25	Anthony Skinner Management: Improving stock control	Piccadilly Hotel, W.1
May 24—25	Institutes of Chemical Engineers and Civil Engineers: Successful completion of overseas projects	UMIST, Manchester
May 25—26	European Study Conferences: Double Taxation—Taking advantage of international agreements	Old Government House Hotel, Guernsey

Parliament this week

TO-DAY

COMMONS—Motion to refer to Committee of Privileges the publication of proceedings of the House. Debate on enlargement of EEC. Motion on EEC document on commercial agents.

LORDS—Debates on family support and perinatal mortality.

SELECT COMMITTEES—Opposed Private Bill Committee on the Sheffield General Cemetery Bill, (2 p.m. Room 5).

TO-MORROW

COMMONS—Wales Bill, report stage.

LORDS — European Assembly Elections Bill, third reading. Scotland Bill, committee. Medicines (Radioactive Substances) Order.

SELECT COMMITTEES—Nationalised Industries, Subcommittee B. Subject: Reorganisation of electricity supply industry. Witness: Mr. A. Wedgwood Benn, Energy Secretary. (10.45 a.m. Room 8). Nationalised Industries, Sub-committee C. Subject: Independent Broadcasting Authority. Witness. Institute for Practitioners of Advertising, Association of Broadcasting Staff. (4 p.m. Room 8). Unopposed Bills Committee on London Transport Bill. (4 p.m. Room 9).

Parliamentary Commissioner for Administration. Subject: Review of access and jurisdiction. Witnesses: Justice. 5 p.m. Room 7). Race Relations and Immigration. Subject: Effects of EEC membership on race relations and immigration. Witnesses: Officials of the Home Office. (5.30 p.m. Room 5).

THURSDAY

COMMONS — Debate on Rhodesia. Motion on Milk (GB) (Amend) Order.

LORDS—Scotland Bill, committee.

SELECT COMMITTEES—Science and Technology. Technological Innovation Subcommittee. Subject: Transverse flux induction. Witnesses: Alcan Ltd. (4.30 p.m. Room 15).

FRIDAY

COMMONS — Private Members' Bills.

LORDS—Solomon Islands Bill, committee. Protection of Children Bill, second reading. Medical Bill, Commons amendments. Debate on Community Land Act.

Building and Civil Engineering

Abu Dhabi £31½m. water plan

SECOND PHASE in the project to supply potable water to the city of Al Ain, designed by D. Balfour and Sons, consulting engineers, for the Government of Abu Dhabi, has just been let for about Dh.236m.—£31½m.

The contractors, Sogex, intend to work on all eight sites concurrently during the contract period, which runs to 30 months.

In this prestige contract, the civil engineering work includes eight reinforced concrete storage reservoirs, each of close on 23,000 cubic metres capacity. There is also extensive pumping station equipment at seven sites, 8 kilometres of ductile iron pipelines and many ancillary buildings.

Mechanical and electrical engineering contract work will include the computerised control and telemetry stations for the water network, water treatment plant, transfer and distribution pumps, generators and air conditioning units.

This second phase is a follow-on from one which began in April last year involving the provision of the basic distribution system.

Over £7m. for Norwest Holst

NORWEST HOLST Southern has won contracts worth over £7m.

The largest is for the design and construction of a multi-storey fitting-out and manufacturing complex at Victoria Road, Portsmouth, for Vosper Thornycroft. This is valued at about £3½m.

The National Coal Board is spending £1m. at Daw Mill Colliery, for civil engineering work in connection with a rapid loading facility for the south Midlands area and another job for Norwest Holst is the refurbishment of offices and public banking areas at Grindlay's Bank, St. James's Square, London SW1. This will cost £320,000.

The Diners Club awarded the company a £330,610 contract for fitting-out its office accommodation at Kingsmead House, Farnborough.

Among the rest of the contracts are offices, flats and shops for Graylaw Group of Companies at Richmond Road, Twickenham (£1.1m.), a three-storey office block of 1,700 square metre area, with a concrete frame and brick cladding, in Calverley Street, Tunbridge Wells, for the National Provident Institution (£726,000) and a block of four warehouses, with pad foundations, structural steel frames and steel cladding, with a large adjacent car park, in Luton, for London and Leeds Developments (£320,000).

Wimpey pulls in £17½m.

SEVERAL major contracts won in recent weeks by companies in the Wimpey Group have added something over £17m. to that organisation's order backlog.

Biggest of the lot, by far, is a £6.8m. operation to be carried out for Unilever, involving the construction of a seven-storey office block as an extension to head office at Kingscote Street and Tudor Street, in London.

A total new floor area of 10,370 square metres will be provided together with underground car parking space.

Second largest job is for ICI, covering civil and building work at the caustic chlorine plant now under construction at Wilton.

Main job is for roads, main drainage, plant structures, etc., and is for completion in August next year. The second contract is for the construction of two switch houses of precast concrete construction.

For Peterborough Council, the company is to erect £2.9m. worth of advance factories and warehouses, comprising 38 structures, on an industrial site close to the Great North Road.

Clad in steel, the factories will have brick-built outside storage bays and the first will be ready for occupancy in 18 months.

Peterborough is accelerating its factory building programme which has brought completions of 165 such units since April, 1970. The latest award brings the total under construction to 59.

For Dacorum District Council, Herts, the Luton Office of the company is to build housing valued at about £1.2m. The Grovehill project is involved and it is at Washington Avenue, Hemel Hempstead.

There will be 101 two-storey houses, representing two styles of five-person, three-bedroom dwellings. Contract completion is for June, 1979.

Redevelopment plans at Derby have brought Wimpey a £¾m. job to build 84 dwellings on a redevelopment site at Norman Street. Housing is to be provided for 270 persons in a mix of one and two-storey units including 44 two-storey houses.

Completion is for October next year.

In an interesting contest at Tadcaster, Yorkshire Water Authority Policy and Resources Committee has opted for the Wimpey Unox oxygen sludge treatment process for the proposed Tadcaster brewery waste treatment plant. Preference has been given to Unox over the deep shaft method as well as conventional high rate filter schemes.

Selection of the Unox method was recommended on the basis of capital cost, the backing of more operating experience and a better effluent quality, Wimpey reports.

In the meantime, design of the plant is going ahead and it has been estimated that the total value of the complete plant at Tadcaster will be in the area of £2.6m.

Simon plant extension

SIMON-CARVES of Stockport (a Simon Engineering company) has been awarded an £800,000 contract by Technoexport Bratislava, the Czechoslovak state buying organisation, for an extension to a technical rubber goods plant previously supplied by Simon-Carves to Matador of Bratislava Petrzalka.

The contract involves the designing and building of a computer-controlled system for weighing, feeding and proportioning the ingredients and for controlling the mixer.

Work at the Matador factory is scheduled to begin in August, 1979, and completion is expected in the middle of 1980. Export credit has been provided by the National Westminster Bank.

£4½m. work in Wales

RECENT contracts valued at £4½m. have ben awarded to John Morgan (Construction), the South Wales subsidiary of the Espley-Tyas Group, Evesham, Worcestershire.

Construction work will be carried out at Porthcawl Comprehensive School and Littlewoods Store, Cardiff; there are to be 80 dwellings at Ely, Cardiff, 34 house improvements, Splott, Cardiff, linked factories 9 to 12, Tafarnaubach, Tredegar, Gwent, reconstruction of Bridgend Railway Station and aged persons accommodation at Llantrisant, Glam.

Housing by Laing

JOHN LAING Construction has been awarded housing contracts worth nearly £2m.

In Bylands Road, New Skelton, Cleveland, Laing has started work on a £1m. plus contract to build 88 homes, together with four shops, for the Borough of Langbaurgh. The development, which includes a four-storey block of 38 warden-assisted flats for elderly people, has been designed by Darlington architects Godsmark Walker Foster.

"Sheltered" accommodation is being provided for elderly people through an in-fill housing project in South Tottenham, London, where Laing is building 30 two-storey flatlets with warden's accommodation, in Summerhill Road for the London Borough of Haringey, under a £415,000 contract.

In Chester Road, Northwood, the company is embarking on a £324,000 contract to build 21 dwellings and ancillary works for the London Borough of Hillingdon. The architects are Edward Cullinan.

Awards to Reed and Mallik

THE CIVIL engineering division of the Rush and Tompkins Group—Reed and Mallik—has won a £2.4m. contract in South Wales for the widening to three lanes of the M4 from Crindau Tunnels to Tredegar Park interchange.

The work, extending over 5km., includes widening of two underbridges, 1,400 metres of retaining walls, modification of drainage, and the construction and surfacing of additional carriageways.

Also in Wales, the company is undertaking piling for British Rail for the new Whitland bridge and again for Andrew Scott in Queen's Dock, Swansea.

At Grimethorpe Colliery, Barnsley, piled foundations for coal handling plant are being provided, while in Scotland, Reed and Mallik is now working on the re-alignment, regrading and widening of 2.2km of the A91 at Cuthilmuir. This contract is worth £560,000.

Down in the south, three contracts with a total value of £300,000 have been started. One is for bore holes for the abstraction of water at Tonbridge, Kent, another is for an extension to a freight shed at Dover, Kent, for British Rail Shipping and International Services Division, and a third award is for a road for an Eastern Gas industrial development at Harringay, London.

Fitting out a City bank

WORK has started on fitting out Cannon Street House, the new City branch of Midland Bank International, Laing Group member Holloway White Allom, has received the £1.5m. contract.

Intended to serve as an operations centre for the Bank's world-wide activity, the development is due to open in October and will yield a total office area of 86,100 square feet for up to 650 staff.

Special features of the 12-storey and 5-storey office block (separated above ground by a private road but linked to lower floor levels) include an executive entertainment suite and conference facilities, computer-based telephone exchange, and up-to-date first aid facilities for personnel.

Over £1m. for Lesser

DESIGN AND construction of two buildings for Thermal Syndicate at Wallsend is being undertaken by Lesser Construction North at a cost of £630,000. A production unit and an engineering workshop with intgeral three-storey office block should be completed by March, 1979 and will represent the first phase of a planned development for the site there.

Swallow Hotels, Sunderland, has placed a contract valued at £½m. with J. E. Lesser (Scotland) to design and build an extension to the existing Greystanes Hotel at Invergowrie, Dundee. Because the latter is a listed building, particular attention has been paid to the elevational treatment of the new extension to ensure harmonious relationship with the older structure. A new low-profile glazed entrance foyer will link the older building to the two-storey extension thus providing an extra 64 bedrooms.

Business in Singapore

THE SECOND of the Building Centre's 1978 Inward Missions will come from Singapore and because it considers the exercise to be one of special importance, the British Overseas Trade Board is increasing the amount of its grant with the result that the cost to participants is reduced from £280 to £230. (£248.40 including VAT.)

Singapore appears to provide considerable opportunities within the housing and other sectors of the market since, in 1976, its Housing and Development Board had around 47,000 flats under construction and intends by 1980, to provide housing for 80 per cent. of the population.

For their money, British firms will get an exclusive interview with the Mission, lasting one hour, at the Building Centre during the week of the visit, May 15—19; up to 2 tickets to the related Conference on "Singapore—a Springboard for trade in South-East Asia and China?" (at Olympia on May 17); and invitations for two representatives to attend the informal reception at the Building Centre on May 15.

Woods' £1m. in South

INDUSTRIAL developments for ICFC Developments at the Phoenix Causeway in Lewes, Sussex, will cost £434,000 under a contract awarded to Woods Construction. The project consists of single-storey, steel-framed buildings on pile foundations.

Single-storey steel portal frame units, clad with brickwork and sheeting, and two-storey attached offices, make up the other development for Hinscourt Properties in partnership with the London Borough of Greenwich with the scheme forward sold to Property Growth Assurance Company. This order involves the problem of a difficult site and will involve piling. Due for completion in 44 weeks, the cost of the work is £592,000,

Shoring unit to be made in U.K.

PRODUCTION OF some of the German Escon trench shoring equipment which was launched in the U.K. last year by Shorco Trench Systems is now to be undertaken in this country. Hitherto the units have been imported.

The equipment to be produced is the Escon box which has been designed to make it safer to dig trenches in wet ground or where there is a risk of trench collapse because of the type of soil being excavated. It is expected that six boxes a week will be produced initially. They are offered for sale or hire by Shorco which has its headquarters at Coutex House, Dewsbury Road, Churwell, Leeds.

Two jobs in Yorkshire

WORK in Bradford and Harrogate, under two contracts together worth £552,000, has gone to M. Harrison and Company (Leeds).

A three-torey extension at the D.H.S.S. building at Leeds Road, Bradford, includes a glazed link to existing building and alterations to the boilerhouse with provision of new access roads and car parking areas, is worth £440,000.

The County Primary School at Pannal, near Harrogate, is to have general alterations and extensions at a cost of £112,000 to the North Yorks County Council.

Safety on the site

A SAFETY-CODE booklet for operators of construction machinery and equipment has been compiled by John Deere, the U.S. manufacturer which claims to be fourth -largest in the free world of construction equipment and the first in agricultural machinery.

Introducing the booklet in London last week Mr. Andy Herrebout, of John Deere Intercontinental, said: "Equipment with safeguards built into them is of limited value unless the operators are safety-minded. A loud horn provides no safety warning if it is never used. A rear-view mirror which is ignored, used as a coat-hanger, or allowed to become dirty, is also valueless."

About 20,000 copies of the booklet—basically an ABC guide to commonsense operation—have been printed so far and they are being sent free to John Deere clients and to safety organisations.

Mr. Herrebout said that distribution of the booklets, initially to U.K. customers and safety organisations, would be extended to France, South Africa and then would be world-wide.

Safe Site Code, 1 Roberts Mews, Lowndes Place, Belgrave Square, London, SW1.

JAMES McDONALD

Concrete flows smoothly

A HIGH pressure concrete pump with twin cylinders and powered by an air-cooled Deutz diesel engine, has been introduced by Mark-Thomsen, Hill End Works, Ashley Road, St. Albans, Herts AL3 5NU (St. Albans 63321).

Its valve system has been modified to provide better material flow and its curved walls guide the concrete through the valve box over readily accessible wear plates and bolts.

Called the P40, the unit is available in three forms—skid mounted, as a site trailer, and a road trailer.

IN BRIEF

● Premises in Cornmarket, Oxford, formerly occupied by Marks and Spencer, are to be refurbished to provide a new store for the Oxford and Swindon Co-operative Society (Northgate House) under a contract awarded to Bovis Construction, at a value of around £200,000.

● Mechanical services in the new fully air-conditioned headquarters of Yorkshire Bank now under construction in Merrion Way, Leeds, are to be provided by Haden Young at a cost of more than £800,000.

● FPA Finnegan (main building subsidiary of the FPA Construction Group) has received contracts worth more than £600,000 for the first phase of a development at Tunbridge Wells, Kent, at St. Gregory's RC Secondary School, and construction of 33 dwellings at the village of Orton Malbourne, near Peterborough, for Hanover Housing Association.

● Due for completion in 86 weeks are 226 dwellings (140 houses and 86 flats) in rationalised traditional construction incorporating Midland Housing Consortium elements, at Barnhurst Farm (Pendeford Phase 2), for Wolverhampton Metropolitan Borough Council. The contract, for £2¼m., has gone to Sir Alfred McAlpine and Son (Southern).

CONTRACTS AND TENDERS

Lembaga Letrik Negara Tanah Melayu

National Electricity Board of the States of Malaya

Bersia and Kenering Hydro-Electric Project

Contract for Civil Engineering Works

PREQUALIFICATION OF TENDERERS

The National Electricity Board invites Applications from suitably qualified and experienced contractors wishing to be prequalified as tenderers for the Civil Engineering Works for the Bersia and Kenering Hydro-Electric Projects on the Upper Perak River, Malaysia.

Applications will be limited to Contractors from member countries of the World Bank and Switzerland. The works shall comprise principally:

BERSIA — A concrete dam of approximately 200,000 cubic yards, power intake, conventional above ground power station to accommodate three units with a total capacity of 72 MW, a concrete spillway, and a switchyard.

KENERING — A concrete dam of approximately 400,000 cubic yards and dykes to abutments of approximately 600,000 cubic yards fill, power intake, conventional above ground power station to accommodate three units with a total capacity of 120 MW, a concrete spillway, and a switchyard.

Tenders will be accepted either for the Bersia Development or the Kenering Development or for both the Developments as one Project.

Applicants should first request a copy of the document entitled "Brief Description of Civil Engineering Works and Prequalification Document" from:

Project Manager
Bersia and Kenering Hydro-Electric Project
The Shawinigan Engineering Company Limited
620 Dorchester Boulevard West
P.O. Box 3010, Station B
Montreal, Quebec, CANADA H3B 3L7.

Copies of this document may also be obtained from:

The Project Engineer
Bersia and Kenering Hydro-Electric Project
Hydro-Electric Division (Fourth Floor)
National Electricity Board
129 Jalan Bangsar
P.O. Box 1003
Kuala Lumpur, MALAYSIA

Formal applications for Prequalification in triplicate should be submitted not later than June 1, 1978 as follows:

(A) Two (2) copies to
Project Manager
Bersia and Kenering Hydro-Electric Project
The Shawinigan Engineering Company Limited
620 Dorchester Boulevard West
P.O. Box 3010, Station B
Montreal, Quebec, CANADA H3B 3L7

(B) One (1) copy to
General Manager
National Electricity Board
129 Jalan Bangsar
P.O. Box 1003
Kuala Lumpur, MALAYSIA

The National Electricity Board will not defray expenses incurred in the preparation of the prequalification application or the Tender and will not be obliged to accept the lowest or any tender.

It is expected that Invitations to Tender and Tender Documents will be issued to Prequalified Tenderers on or about August 15, 1978 and that tenders will be required to be submitted approximately four months thereafter.

PURCHASE OF CEMENT

Interested in purchase of about 150,000 MT of Ordinary Grey Portland Cement (BSS 12/1958 as amended up to date) packed 50kg in paper bags with approx. 80% quantity pre-slung. Shipment required from August 1978 onwards. Enquiries solicited from leading manufacturers/leading traders.

Please apply within fifteen days of this advertisement for tender forms and other terms and conditions to:

Anand Krishna,
Chief Marketing Manager (Cement),
State Trading Corporation of India Ltd.,
Chandralok, 36 Janpath, New Delhi, India.
Cables: ESTICI, NEW DELHI.
Telex: 2167, 2168 & 3057.

APPOINTMENTS

INVESTMENT ANALYST

£6,660 – £8,585 + £286 additional payment

The Electricity Council is the central co-ordinating body for the electricity supply industry in England and Wales.

The Investment Branch has responsibility for the investment of funds of the Industry's superannuation schemes totalling over £500 million.

Investment Analysts are responsible for keeping under constant review a sector of a substantial portfolio of equities, assessing company reports, incoming economic reports and studies in depth of industries and companies. The man or woman we are looking for will make recommendations for appropriate action, assist in the day to day administration of the total portfolio of investments, and prepare reports on a wide range of ancillary investment matters.

A sound knowledge of economics and investment principles is essential.

Please write in confidence giving details of career to date and salary quoting FT/4 to:

Duncan Ross,
Recruitment and Development Officer,
The Electricity Council,
30 Millbank, London SW1P 4RD

ELECTRICITY COUNCIL

COMMODITY APPOINTMENTS LTD. International Recruitment specialists for the Community Markets. Tel. Graham Stewart, 01-439 1701.

HOTEL AND BUSINESS Transfer Agency, Southern Home Counties, has vacancy for executive. Write Box T.4874, Financial Times, 10, Cannon Street, EC4P 4BY.

MONEY MANAGER, British, aged 44, resident France, following an outstandingly successful City career, seeks top financial appointment. Capital fully employed, but further resources available. Write Box T.4877, Financial Times, 10, Cannon Street, EC4P 4BY.

LEGAL NOTICES

No. 001220 of 1978

In the HIGH COURT OF JUSTICE Chancery Division Companies Court, in the Matter of SPUR ADVERTISING LIMITED and in the Matter of The Companies Act, 1948.

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named Company by the High Court of Justice was on the 18th day of April 1978, presented to the said Court by ALAN MOOR & CO. (PRINTERS) LIMITED whose registered office is situate at 212, The Strand, London, WC2R a Company incorporated to trade as printers, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, WC2A 2LL on the 15th day of May 1978, and any creditor or contributory of the said Company desirous to support or oppose the making of an Order on the said Petition may appear at the time of hearing, in person or by his counsel, for that purpose; and a copy of the Petition will be furnished by the undersigned to any creditor or contributory of the said Company requiring such copy on payment of the regulated charge for the same.

PAISNER & CO.,
44, Bedford Square,
London, WC1B 3DU.
Ref. 20. Tel. 01-323 3200
Solicitors for the Petitioner.

NOTE—Any person who intends to appear on the hearing of the said Petition must serve on, or send by post to, the above-named notice in writing of his intention so to do. The notice must state the name and address of the person, or, if a firm, the name and address of the firm and must be signed by the person or firm, or his or their solicitor (if any) and must be served, or, if posted, must be sent by post in sufficient time to reach the above-named not later than four o'clock in the afternoon of the 12th day of May 1978.

No. 001268 of 1978

In the HIGH COURT OF JUSTICE Chancery Division Companies Court. In the Matter of ANTHONY PURSER ASSOCIATES LIMITED and in the Matter of The Companies Act, 1948.

NOTICE IS HEREBY GIVEN that a Petition for the Winding up of the above-named Company by the High Court of Justice was on the 20th day of April 1978, presented to the said Court by A. L. WELLS & SON LIMITED, whose registered office is at RMC House, 53/55 High Street, Feltham, Middlesex, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, WC2A 2LL, on the 15th day of May, 1978 and any creditor or contributory of the said Company desirous to support or oppose the making of an Order on the said Petition may appear at the time of hearing, in person or by his counsel, for that purpose; and a copy of the Petition will be furnished by the undersigned to any creditor or contributory of the said Company requiring such copy on payment of the regulated charge for the same.

YOUNG JONES GOLDING PATTERSON,
2 Suffolk Lane,
Cannon Street,
London, EC4R 0AU.
Solicitors for the Petitioner.

NOTE—Any person who intends to appear on the hearing of the said Petition must serve on, or send by post to, the above-named notice in writing of his intention so to do. The notice must state the name and address of the person, or, if a firm, the name and address of the firm and must be signed by the person or firm, or his or their solicitor (if any) and must be served, or, if posted, must be sent by post in sufficient time to reach the above-named not later than four o'clock in the afternoon of the 12th day of May, 1978.

ART GALLERIES

BROWSE & DARBY, 19, Cork St., W.1. SICKERT. Mon.-Fri. 10.00-5.30. Sat. 10.00-12.30.

COLNAGHI, 14, Old Bond Street, W.1. 01-491 7408. INDIAN PAINTINGS—Mughal and Rajput 1500-1850. Until 8 May. Mon.-Fri 9.30-5.30. Sats. 10-1.

COVENT GARDEN GALLERY LTD. "The Tropic Bird." Visionary Watercolours. W. J. Chamberlayne. Views of West Africa, West Indies, Mauritius and Britain 1850-90. Open daily 9.35-5.30. Sats. 12.30. Thurs. 7. 20 Russell Street W.C.2. 01-836 1139.

FIELDBOURNE GALLERIES, 63 Queensgrove, N.W.8. ART IN RELIGION.

FOX GALLERIES. Exhibition of the paintings by British and European Artists from 1700-1965. 5-6, Cork Street, London, W.1. Tel. 01-734 2626. Weekdays 10-6. Sats. 10-1.

GILBERT PARR GALLERY, 285, King's Road, Chelsea, S.W.3. JOHN MILNE—NEW SCULPTURE. Until 13 May. Open Tues.-Sat. 9.30-5.30.

THE PARKER GALLERY, 2, Albemarle Street, Piccadilly, W.1. Exhibition of Old marine, military and sporting and topographical prints and paintings and ship models.

PORTRAIT PAINTERS. Royal Society's 84th Annual Exhibition at the Mall Galleries, The Mall, S.W.1. Mon.-Sat. 10-5. Until 18 May. Adm. 50p.

Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

● HANDLING

Conveying cleanly round the bend

MANY OF the tracking problems that can occur when multiple lines of products are being conveyed around bends can be eliminated with a new design of powered bend which can be used on extremely tight radii.

Associated Conveyers (Torvale Group) points out that bad tracking of bend unit belts will produce wrinkles in the belt fabric and result in jerky operation. The result is that separate lines can converge, upset unstable products and cause major production holdups.

The product is designed to cope with bends of between 15 degrees and 180 degrees with an internal radius of as little as 50 mm. or as much as 1000 mm.

Belt widths from 100 to 1800 mm. are handled.

The secret of the bend is a drive system which employs a chain on the outside of the belt. This eliminates the requirement for driven rollers which sometimes suffer from traction problems. Thus, the new unit can incorporate a variety of terminal roller sizes or even knife edge transfers.

Associated is claiming that the new product goes a long way towards eliminating maintenance problems caused by belt wear with a consequent increase in uptime for the equipment.

Further details of the powered bend series from Associated Conveyors, Torvale Industrial Estate, Pembridge, Leominster, Herefordshire HR6 9LA, 05447 262.

● PACKAGING

Colourful cartons from new plant

BOWATER CONTAINERS has opened a new £2m. corrugated board plant which has just been installed at the company's Newport, Gwent, factory.

It houses a Simon Rengo computer-controlled continuous running corrugator and flow line system, and the company intends eventually to increase output by 40 per cent.

According to Bowater, the new unit is the most advanced in the world and the company will now be able to produce a full range of single and double wall corrugated board containers to a much higher specification, for transit and for presentation packinging of consumer goods such as electrical appliances, household goods, food and toys, as well as many industrial products.

In addition to increasing throughput, the new installation has also opened up a fresh marketing opportunity for high quality colour printed containers. Normally it is necessary to laminate litho printed paper on to corrugated board—a time-consuming operation involving quite a high degree of waste.

On the new corrugator, however, pre-printed liners in up to six colours can be fed directly into the board-making process.

Bowater's Newport factory has a work force of 350 and is one of the company's nine major manufacturing plants scattered throughout the U.K., supplying the packaging needs of local industry.

Introduction of the new investment plans led to setting up a joint consultative committee and negotiation of a new agreement for operating the plant with local trade union representatives. Supervisors and shop stewards visited Italy and Japan to see similar installations in operation.

ROBIN REEVES.

● SAFETY AND SECURITY

Protects the face

A SIMPLE AND effective answer to safety for operators spraying two-pack paints, is offered by Safety Products, Redhill.

A face mask, called the Clearway Air Fed Vizor, comprises a clear vizor mounted on adjustable headband with soft, permeable foam mouldings which seal the vizor against the wearer's forehead, chin and sides of the face, to accommodate, where necessary, spectacles, safety glasses and beards.

A diffuser inside the base of the mask admits continuous air, which can escape through the seals and small gaps where the mask does not conform exactly to facial contours. The user's face is swept with a continuous stream of clean air which stops contaminated air from entering, and prevents condensation. Air is provided from a conventional spray shop compressed air supply equipped with the necessary filtration equipment.

More on 01-629 9171.

Controls the speed

SAFETY STOPPING devices are the principal features of a pneumatically powered grinder introduced by the Tool Division of Consolidated Pneumatic Tool Company, Aberdeen.

The operator is protected by an overspeed prevention device which is designed to cut off the power supply should overspeeding occur. Once the CP "safe-stop" has been operated the grinder cannot be re-started or the stopping device by-passed in any way, ensuring that the tool is taken out of service until the fault is traced and properly rectified.

The tool is supplied in both horizontal and angle versions and designed for use with standard abrasive wheels, cut-off discs, sanders and wire brushes both versions are available with 3 hp. or 4hp motors which are of the newly developed unitised type able to be removed intact for servicing.

More on 01-870 7321.

A warning to all

THE OBVIOUS uses of sirens as fire and intruder alarms have been extended with many other applications throughout industry and the domestic field. Siren devices can be fitted to the rear of lorries, buses, earthmoving equipment and similar heavy vehicles to give a sound warning for safe reversing. Other examples are fault alarms on chemical and engineering process plant, and as an effective anti-mugging device.

An omnidirectional electronic siren capable of producing a penetrating 101 dB(A) alarm signal at 1 metre, but with an average power consumption of less than 1.2 watts is the Wailer, from Welwyn Tool Co., Welwyn Garden City, Herts. 29121.

A distracting variable frequency warble is emitted which can be heard easily in areas where the ambient noise level is high and reversal of the supply polarity changes the alarm to a continuous tone. A distinction can then be made between an ordinary alarm and an 'evacuate' signal.

A portable version of the Wailer is expected shortly. This will have a built-in 9V battery and will be particularly suitable for raising an alarm in isolated areas.

Position at a glance

CRANE instrumentation specialist Weighload, of Putney, is introducing a remote indication system which enables the conventional indicator unit to be moved out of crane operating cabs.

It is a design advance in line with Weighload's "keep it simple" policy.

The control box can be located in any convenient position on the crane and the readout console sited in any position within the vision of the operator.

Based—as is the whole unit—on straightforward electro-mechanical principles, the remote readout system incorporates three dials. Actual load, safe working load, radius/angle readout, boom length and approach to overload are all clearly visible on the indicators—all the information required to operate all cranes safely, as on the main control box.

Any onshore crane can be fitted with remote readout Weighload and in cases where cab design gives little available space for the regular unit or even the new module, the triple dials can be married into the crane operating layout.

Weighload, Douglas Wharf, Brewhouse Street, London, S.W.15. 01-788 7701.

● COMPUTING

New force in point of sale

AGGRESSIVELY expanding its financial and business market penetration, Chubb Electronics has taken under its wing, through its Gross Cash Registers acquisition, two types of point of sale equipment made in the U.S., which it is promoting throughout the European market.

Despite the acute competition in this particular area of business electronics — from IBM, NCR, ICL and several other well-known names—the company appears confident that the equipment, because of its high reliability record from the 25,000 terminals already installed in the U.S. by the maker, Datatrol, will win prompt acceptance.

It quotes a mean time between failures of 26 months for non-print terminals and one of 11.6 months for printing terminals on a one-user population of 580 units.

Another point advanced is the simplicity of the devices which makes operator retraining very easy.

Offered are the CR1 for large stores and the CR3, which is a small, cassette-loaded off-line unit.

Based on a Data General Eclipse, this unit can run a very large network, and, Chubb says, is so low in cost that for a 600 terminal array in eight branches, the charge comes to little more than if the stores were equipped throughout with the equivalent number of electronic cash registers.

CR3 is a compact unit like an electronic cash register, but with cassette data capture and ability to handle up to several hundred data entry sequences.

This means that the untutored operator can select an entry sequence for any particular result required by punching the appropriate code and be guided through the required key strokes by the equipment. So verification procedures pose no problems and the machine can be set to calculate tax and discount as needed.

More from Gross Cash Registers (Chubb Group), Crowhurst Road, Hollingbury, Brighton, East Sussex BN1 8AQ. 0273 506241.

● RETAILING

Speeds work of cashiers

PROGRAMMABLE cash register L35 introduced by Sweda International can be programmed from the keyboard and also has extensive analysis ability.

Versions range from a machine with 16 totals that can accommodate five cashier's activities, to the model D which can handle 80 departmental totals and can hold up to 79 preset prices.

These preset prices can be recalled at the touch of a button and at each depression the item is automatically recorded as a sale and the amount is added to the appropriate departmental analysis total. An item counter is incorporated.

Two illuminated "green on black" displays are provided, clearly showing each transaction to both customer and cashier. The rear display can be moved to the side of the register if desired. Errors are easily corrected as they are keyed. Sales details are also printed on a dual mechanism printer, for customer receipt and journal roll.

Tax and discount rates can be programmed in through the keyboard (for items or complete transactions), and payment modes can be cash, cheque, charge or account. Change computation is automatic.

More from 27 Goswell Road, London EC1M 7AL (01-253 3090).

● CATERING

Cuts cost of tea-making

WITH ENERGY conservation in mind, it is good sense to use an existing steam supply for bulk or individual tea making, rather than more expensive heating media, which premise has led to the introduction of Calomax's SL water boiler.

Instant, on-tap supply of fresh boiling water can be provided wherever steam or high temperature hot water is available, as in factories, canteens hospitals and ship's galleys. No fuel is used unless boiling water is drawn off, a feature which not only saves energy but also reduces condensation and damage to decorations when working in a confined area.

A safety factor of the machine is the concealing of standard pipe connections, eliminating the risk of burns from exposed steam pipework. It is sleekly compact, can be mounted on wall brackets, or fitted to take up minimum counter space.

More from the company at Lupton Avenue, Leeds LS9 7DD. (0532 493681).

● TELEVISION

Low cost long cable video

AVAILABLE in this country from J. O. Grant Taylor of Potters Bar are Grundig terminal units that enable video signals to be set over pair lines—a telephone cable pair for example—instead of the more expensive conventional coaxial variety.

Impedance matching and the necessary frequency response and group delay correction are carried out using the LSV 72 balancing amplifier at the camera end of the link, with the LEV 72 correction amplifier at the receiving end.

The balancing amplifier takes a one volt composite video signal from a 75 ohm coaxial input and delivers a balanced two volt peak-to-peak output to the two wire line. The correction unit is a low noise amplifier with sufficient gain to compensate for line loss and it incorporates adjustable frequency and phase correction networks to permit restoration of picture quality.

Television signals can be sent over 1.5 km with a received picture resolution of 400 lines per picture width. Up to 4.5 km becomes possible with two intermediate amplifiers.

More on Potters Bar 42323.

● COMMUNICATIONS

Phone link for data users

VOICE digitising equipment made by Time and Space Processing Inc. of California is being made available in the U.K. by Cole Electronics of Croydon.

Purpose is to transmit high grade voice signals over a 2400 bits/sec. synchronous data channel. According to the company savings of many thousands of pounds a year can be made by users contemplating the purchase of an additional leased line over an extended distance if a suitable means is used of combining voice and data signals over a common route.

Cole states that although units have existed for some time that will perform this function, user objection to the speech quality has prevented large scale introduction.

The T and SP unit does not suffer from "Mickey Mouse" speech problems and speaker identification is guaranteed.

More from the company at Lansdown Road, Croydon CR9 2HB (01-686 4411).

● MAINTENANCE

Improved sweeper

THE LATEST development of the Roadmaster 1600 mechanical sweeper, first introduced by Blaw Knox some eight years ago, is the Mk. IV version, designed especially for municial street cleaning duties.

Significant changes are in the design of the operator's cab and the brush system: there is greater headroom and legroom and three hydraulically driven brushes with the two side brushes mounted in a new position, set close to the main brush, improve sweeping performance.

The new design, and the smaller Pathmaster 42, will be shown at Expomat in Paris, May 19-27.

More from the company at Short's Way, Rochester, Kent. 0634 41041.

● PROCESSES

Plastics kept dry

MANUFACTURERS can pre-dry plastics materials prior to processing with an economically priced, portable drier just on the market from Regis Machinery (Sussex), Richmond Road, Bognor Regis. 02433 25861.

The device called the RS Portodrier, is self-contained, consists of a single-phase, electric motor-driven fan and thermostatically controlled heating element and weighs only 8kg. It can be fitted to circular or rectancular hopper covers of the smallest extruders or injection moulding machines, and one drier can serve several machines.

● ELECTRONICS

Good sound costs less

CONVINCED THAT the market is now right for the introduction of a new range of high-quality tape cassettes specially designed for the domestic user, 3M United Kingdom has launched the Scotch Master series.

Simply designated I, II, and III, they can be used on tape decks with the bias switch (if available) set for normal or ferric oxide tape, for chromium dioxide tape, or for ferrichrome tape, respectively.

The magnetic qualities of the formulation on the tapes have been specially developed to give optimum output with Japanese bias settings to meet the demand at the top end of the market, where 80 per cent. of the equipment is Japanese, although they will give improved performance on most machines.

The cassette shell itself has also been re-designed to minimise wow and flutter, and improve tape tracking and winding.

Total U.K. blank cassette market was around 30m. last year and is increasing. This year one-in-five cassettes being sold are in the high-quality range—the new Scotch tapes will be competing in this field, but with a price and performance advantage.

An independent audio equipment testing laboratory (Angus McKenzie Facilities) reports . . . "the tapes gave good overall performances under domestic conditions, and can be classed among the leading cassette tapes available to-day."

It is understood that the retail price for the C90 versions will be around £2, which should give them an edge over the competition.

More from the maker at PO Box 1, Bracknell, Berks., RG12 1JU (0344 26726).

Boosts the night image

MULLARD has developed a high sensitivity proximity image intensifier which weighs under 100 grammes, is 43 mm. in diameter and only 30 mm. long. An important application will be in night vision goggles and in other devices where low weight and small size are important.

Known as the XX1410, the device operates from a level of illumination below that of starlight (one ten thousandth of one lux) and has a luminance gain of between 7,500 and 15,000. Automatic gain control maintains a constant level of three candelas per square metre on the screen.

The unit consists of a fibre optic input window on the rear of which is deposited a low noise, high sensitivity photocathode. A micro-channel plate multiplies the electrons from the photocathode which are then focused on to the P20 phosphor screen of a fibre-optic image inverter to form a bright image.

Encapsulated in a white plastic body, the unit has its own AC/DC converter and takes 15 mA from a 2.7 volt supply.

More from Mullard House, Torrington Place, London WC1E 7HD (01-580 6633).

The Management Page

The hazards of employee reports

Employee Reports, by Anthony Hilton, Woodhead-Faulkner, £12.50, 113 pages, plus 72 pages of plates.

THERE is a cynical saying that companies only try to communicate their results to their employees when profits are bad. A seasoned trade unionist quoted in Anthony Hilton's book remarked pithily: "I have yet to meet a boss who wasn't going broke when it came to the annual wage round." The problem with reporting to employees therefore centres around the question of how to gain credibility, of how to avoid the trap of employees coming to regard the gaily-coloured, graphically ingenious documents circulated to them as being "patronising and gimmicky, and peddling propaganda."

Mr. Hilton's book, sub-titled "how to communicate financial information to employees," is diligently researched and attractively produced, with a lavish centre section of practical examples of the art. But in the end there are no really convincing arguments about how to bridge the credibility gap. Is employee reporting to be just another tool of management, or is it to be a way of forging a common purpose?

The author's final conclusion is surprisingly lukewarm. "Employee reports are just a stage in the evolution of communication and participation programmes in industry," he writes. "They are worthwhile, but on their own they will not solve many problems."

The growth of employee reporting reflects, of course, a wave of concern throughout the Western world about the need to widen the audience for accounting information. The U.K. accountants produced their study of "The Corporate Report" several years ago, and an investigation has been mounted by the U.S. Department of Health, Education and Welfare, while the Sudreau Report in France can also be mentioned. Within the past few months the UN has been stirrring up controversy with its report calling for wider "social" reporting by multinational concerns.

There is plenty of practical advice in the book about how reports to employees (and reports about employees) should be set out. And there are valuable warnings that the project should not be entered into lightly. Once started, any attempt to back out of annual (or more frequent) employee reporting in future would be received with suspicion.

Disappointingly, however, there are few valuable suggestions about how to put employee reporting on to a more legitimate footing. Advice that reports should be put under the control of external public relations consultants may be practical, but offers no fundamental advance. And Mr. Hilton, who is editor of Accountancy Age, forthrightly rejects the possibility that the accounting profession should play a big role. Accountants lack the imagination for effective communication, he suggests, arguing that it was accountants and auditors who made published accounts incomprehensible in the first place.

There must be some other alternative: perhaps the unions could be brought into financial reporting? In the meantime Mr. Hilton's dream that both sides of industry could achieve genuine communication will not be achieved if the figures are loaded one way or the other: if, for instance, one side insists on talking about value added while the other wants to know about profits.

BOOK REVIEW BY BARRY RILEY

BUSINESS COURSES

Matrix management, Brunel University, Middlesex. June 20-23. Fee: £175. Details from the Secretary, Management Programme, Brunel University, Uxbridge, Middlesex.

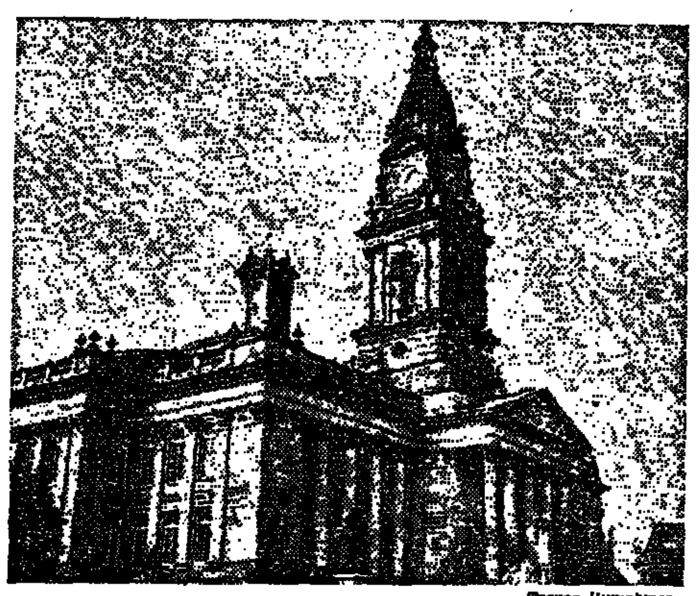
The Art of Purchasing Management, Clarendon Hotel, Leamington Spa. June 19-23. Fee: £195 plus VAT. Details from Purchasing Economics, Pel House, 35, Station Square, Petts Wood, Kent.

Financial Public Relations, Quaglino's, London. June 14. Fee: £50 plus VAT. Details from CAM Foundation, Abford House, 15, Wilton Road, London, S.W.1.

Job Evaluation, Whites Hotel, London. June 13-15. Fee: £191.16. Details from the Course Administrator, Institute of Personnel Management, Central House, Upper Woburn Place, London, W.C.1.

As the country goes to the polls, **David Churchill** asks why 'corporate management' seems to have lost its glamour for some local authorities

The precarious life of today's Town Clerk



Trevor Humphries

WHICH £17,000 a year chief executive was sacked from his job of running an organisation which spends an annual £250m. plus? And why did his employers feel the organisation would be best run by allowing the operating divisions to manage their own affairs without any central corporate management?

The chief executive who lost his job was Mr. Frank Amos, widely acknowledged as one of the top men in the business of running a multi-million pound local authority. But his employers, Birmingham City Council, decided last year that the provision of services to 1.1m. people could be carried out without the sophistication of corporate management.

Birmingham's decision has been echoed by a number of other local authorities over the past 12 months—making the job of local authority chief executive almost as insecure as managing a football club.

It highlights the irony that whichever political party wins power at the ballot box in this week's local government elections, the question of how that power should be implemented is still being hotly debated in town halls throughout Britain.

When the Tory re-organisation of local government took place in 1974, local authorities were all too eager uncritically to adopt what was for them a totally different management style: the grandly-titled "corporate management," involving constant control of individual services from the centre.

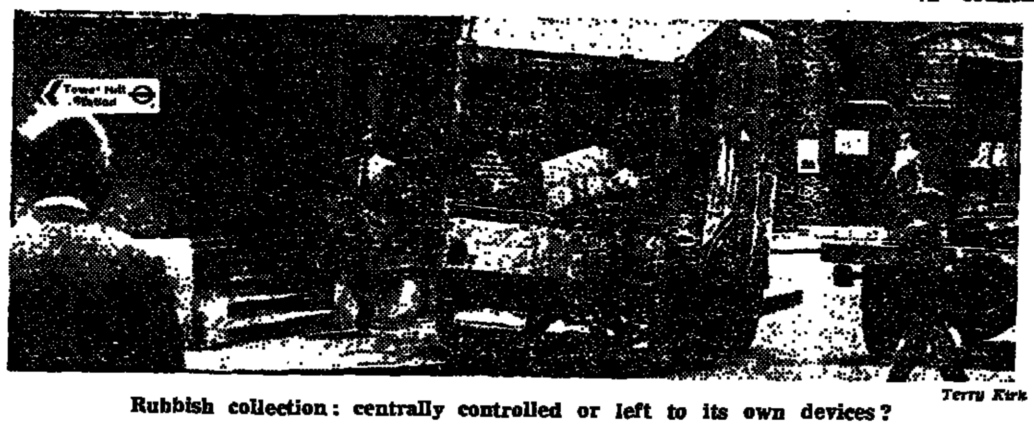
While many of them adopted the trappings of corporate management—such as a chief executive to run operations—it soon became apparent that this was merely lip-service as far as many town halls were concerned. About a dozen authorities have since gone so far as to scrap the new system and sack their chief executive.

Even those which have resisted the step do not appear to have embraced the concept of corporate management with any enthusiasm. A recent "think tank" report commented that "even where corporate 'machinery' is in existence, decisions and policies seem to be made in very much the same ways as in the past."

A similar point emerged from a detailed study of 27 local authorities carried out by the Birmingham-based Institute of Local Government Studies. Some councils were developing corporate systems that were "becoming more and more refined" but which had "rather little or only peripheral impact upon the budgetary process."

The issue of how local authorities manage themselves is not just of academic interest—their activities impinge upon every aspect of industrial and public life, and the question of how public money is spent is obviously of wide concern.

Local authority management now falls between two basic extremes. Traditionally, authorities gave a wide freedom of operation to individual departments, such as education and social services, to operate independently of each other. Financial budgets tended to be set once a year, often after stormy committee meetings, and then departments were left alone to conduct their services more or less as they saw fit.



Terry Kirk

Rubbish collection: centrally controlled or left to its own devices?

As Mr. Freddie Ward, president of the Society of Local Authority Chief Executives (SOLACE) points out: "The defects of unco-ordinated departmentalism, with each committee and department content to paddle its own canoe, are even more obvious when the allocation of resources is critical, as at present."

The other extreme—at which some authorities have aimed, but few have achieved—is for the resources used by individual departments to be determined, allocated and continually controlled by a central, or corporate, management responsible for considering the resources and objectives of the organisation as a whole. Linked to this is the concept of corporate planning—looking ahead to the potential needs and problems over several years, rather than the immediate financial year. "There is an overwhelming case," believes Mr. Ward, "for a system of corporate management which enables priorities to be established in a systematic and comprehensive manner."

It was only comparatively recently that local authorities came under intense pressure to justify their activities and their use of manpower and resources. A key factor which prompted reappraisal of their management style was the spiralling cost of providing public services in the early 1970's.

Added to this was the feeling prevalent in political circles at the turn of the decade that "big is best." This concept led to the setting up of such massive Whitehall monoliths as the Department of Trade and Industry and the Department of Environment. In local government, the wholesale reorganisation which came into force in 1974 was intended to set up more powerful and larger authorities than before. The new entities were the shire counties and the metropolitan districts, with the smaller district councils as a second "tier."

Larger authorities, it was argued, would be able to afford better quality personnel, not only to run existing services, but to improve the "overall economic, cultural and physical well-being of the community."

That objective was set in the 1972 report of a working party headed by a Mr. Bains, then Clerk of the Kent County Council, and subsequently known as the Bains Report. It broadly advocated that a local authority should have a central committee to formulate main objectives and priorities and oversee all the authority's activites.

This central committee should be advised by a Chief Executive who would be the top official of the local authority, Bains suggested. The chief executive need not have any specific professional qualifications for the job, unlike the tendency for Town Clerks—who the Chief Executive replaced—to have legal training.

To keep the Chief Executive's mind and desk free to deal with major issues he should not have departmental responsibilities, Bains argued. Instead he should be assisted by a formally-recognised management team, a kind of cabinet formed from the more important department heads.

Bains recommended that inter-disciplinary teams of officials should also be formed to advise the various standing committees for each council department. This suggestion, and several other recommendations, were designed to check the growth of departmental empires and loyalties to the provision of particular services.

The Bains report was *not* the first time that the idea of corporate management had been mooted. As far back as 1924 the then *Minister* of Health felt it would be a good idea if someone had managerial responsibility for the whole organisation. Over the years, a few local authorities took up the philosophy in a limited way. SOLACE suggests that this gradual process would have continued and become the norm by simple evolution. But as a result of the 1974 Tory reorganisation, it argues that "what was originally evolution became revolution." And the revolution's manifesto was the Bains' Report.

Four years later, the revolution appears to have been less than total. The Central Policy Review Staff, or "think tank," in a recent report on the relationship between central and local government, found that none of the local authorities it visited "could be described as having developed a corporate plan or as pursuing corporate management in the fuller and more ambitious sense."

Ambitious corporate management, according to the think tank, requires: "Comprehensive assessments of needs, existing policies and programmes; the definition, ranking and agreement of objectives; assessment of alternative ways of achieving objectives and of the trade-offs between these; and finally, based on all these, the development of a comprehensive strategy which provides the framework for all subsequent sector plans."

But the think tank did conclude that "many authorities have done quite a lot in setting up the organisation and introducing some of the basic methods needed for corporate approaches." These methods included the Chief Executive and committee structure suggested by Bains. In addition, some authorities had set up planning units to collect data on needs and resources, formulate options and plans, and carry out policy analysis and review. Others had prepared formal statements of needs and objectives, and plans for meeting them which crossed traditional departmental fields of responsibility and spanned several years. And others still were making significant attempts to break new ground in co-ordinating resource allocation from several departments or agencies in response to a need.

But in a number of cases, the think tank adds, management style was still traditional. "The Chief Executive was simply the old town clerk (sometimes the same individual) with a new title, or the corporate planning unit simply his somewhat extended personal staff."

Although it may be unfair to judge local authorities too harshly over their reluctance rapidly to embrace corporate management in reality as well as in theory, four possible reasons were suggested by the think tank for the slower-than-expected progress.

First, changing long established ways of working is bound to be slow, especially when the old structure of services and departments remains unchanged.

Secondly, working in a corporate way is difficult, and many local authorities are simply not very good at it or still not sure of its value. The restrictions on public expenditure over the past few years have also tended to reduce the earlier interest shown by some local authorities, who feel that a new management style needs a more prosperous economy in which to flourish.

Thirdly, corporate action by local authorities is inhibited by the activities and indeed the mere existence of the large number of agencies with whom they have to deal. Central government departments are only one group of contacts; local authorities are another. Co-ordination between a rural county and a metropolitan district, for example, can be hampered by differences between the interests and often the political complexions of the two authorities.

Finally, local authorities' reluctance wholeheartedly to adopt corporate management may possibly be caused by the over-bearing way in which central government dictates to local authorities on many issues. Some authorities undoubtedly believe that if Whitehall is going to dictate policies and procedures, then there is little point in pursuing separate corporate plans.

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هكذا من الأجل

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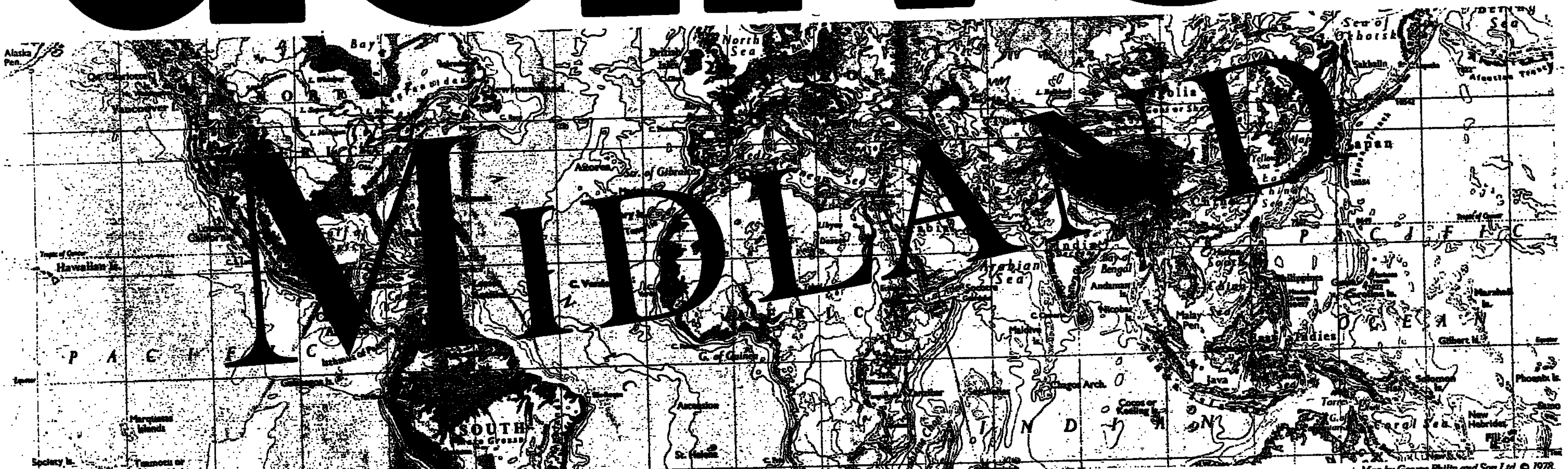

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LOMBARD

Moving the movement

BY ANTHONY HARRIS

THE BUILDING SOCIETY movement has not been getting quite the friendly Press it is accustomed to recently; criticisms from the clearing banks, the Government, the Registrar of Friendly Societies and others have found their echo, in this column among other places. The charges of being inward-looking, over-branched, financially destabilising and perhaps too constricted in some of their lending criteria are all serious ones, and do need airing. All the same, there is no doubt that the societies do their own thing supremely well.

Gratifying

The physical effect on this country has been startling and on the whole gratifying. As a people we are better housed than many others with a far higher GNP per capita—and if the National Income Blue Book contained a more realistic valuation of the imputed value of the services we get from our housing, the league tables might make less doleful reading. The very physical shape of our cities is a monument to this remarkable financial invention; and as one who believes that an acre lost to farming for the sake of habitable houses with their own little patch is an acre well spent, I rejoice in it.

Indeed, it takes the siege mentality known as "strategic considerations" to justify the planning restrictions which prevent the potential demand for a cottage and an acre, which dates back well before the Chartists, from expressing itself in the land market. The existing standard of housing determines the living standards of generations to come, and deserves economic priority.

To argue against the societies when they claim to be immune from the restrictions which beset other financial intermediaries, or cavil at official attempts to smooth out the flow of loan money a little, is not to say that these benefits are not worth having. Even the claim made by some economists that the movement has diverted funds which might have gone to industry is only a question of degree—and there is precious little evidence that the scarcity or the cost of funds has much to do with British industrial performance. The drain of talent into professions privileged with monopoly fee-scales is probably more important than the drain of financial capital into housing. We may have a little too much of a good thing, but it is unquestionably a good thing.

What is beyond question, though, is that if we may have too much of a good thing, there are other countries which have far too little of it. This is a British invention crying out to be exported.

The suggestion actually comes from a Bank of England official at his wits' end to find a way to divert the remarkable expansionist talents of the building societies into some channel which would not crowd out the clearing banks; but this is actually one result which would probably not follow if the Nationwide turned into the Worldwide. The expansion would simply be at the expense of those banks in other countries which enjoy large flows of small savings. The economic benefits, on the other hand, could be large.

The point about a purely housing bank is that because it has some of the best available financial security and easily the most reliable borrowers—they actually do *repay*, after all, which is largely a polite fiction in industry—is that it can lend much longer on essentially short-term deposits than any other intermediary dare do.

In two quite separate senses, the result is very good for economic growth at a time of obstinate recession. Housing investment not only provides immediate local employment, but in the longer run a rise in housing standards opens up whole new markets for things to put into the resulting houses. The social results cannot be measured as part of the growth of GDP, but there may be some significance in the fact that rioting, kidnapping and the like are much more common in countries which condemn large parts of their populations to live in flats than in countries where houses are the rule. Even within this country high-rise living is well recognised as a social problem in its own right. The surplus countries, which claim that they simply do not know how to raise domestic demand, should be looking urgently at housing finance.

Two problems

There are two problems with exporting the idea. One is that savers in other countries may notice that our own savers have done very badly in real terms in recent years—though that is no fault of the movement. This is little threat in countries with reliably low inflation, but might be a problem in, say, Japan. The other is that a housing finance bank can only grow slowly and organically — its soundness depends on the build-up of repayments over the years, which is the real justification for what looks to bankers like a dangerously low level of liquidity.

But problems are there to be surmounted. Perhaps the missionary zeal which is such a feature of the movement could persuade some government with swollen reserves to put up the starting capital. And of course, if North Sea oil should eventually erode our own exchange controls. . . .

THE WEEK IN THE COURTS

Rising rent problem

BY JUSTINIAN

RENT REVIEW clauses are back on the legal stage. These clauses in long-term leases are designed to cope with the consequences of inflation, but in the process have thrown up a host of legal problems. A year ago the House of Lords had to determine whether the time fixed in a long-term lease for regular review of a rent was essential*. In the result, the Law Lords held that these clauses were to be construed according to what the parties meant, and that a time bar could only be obligatory if the words were clear. The courts would not impute to the parties something that operated injustice unless compelled to do so.

To-morrow the House of Lords will be hearing another rent review case in which the problem is what is meant by "a reasonable rent." Does it mean a rent that is reasonable for the demised premises; or does it mean a rent that would be reasonable for the tenant to pay?

The problem arose in this way. Trustees of a settlement granted to a company a lease of factory premises in Barking for a period of 21 years from June, 1968, at a rent of £9,000 a year for the first seven years. It was provided by the lease that for the second and third seven-year period the rent should be £9,000, or higher if, on assessment, that would be "a reasonable rent for the demised premises." The assessment would be by agreement, failing which it would be determined by an independent surveyor.

Enhanced value

In 1969 the premises were burnt down. They were rebuilt from proceeds of fire insurance, but the factory was materially improved by making certain additions that were at the expense of the lessees. These improvements costing £32,000 required the consent of the landlords who readily granted a licence. They, of course, would be the ultimate beneficiaries of the improvements since the factory would revert to them at the end of the lease at its enhanced value.

When it came to assessing the rent for the second seven-year period in 1974 the landlords claimed that the rent should be assessed as a reasonable rent for the premises as they then were, without regard to their recent history. The lessees contended that the rent should be a reasonable rent for the premises without the improvements for which they had paid. Faced with this quandary the independent surveyor sought the advice of the courts. So far, the score is two-all, the trial judge and one member of the Court of Appeal declaring that the law sided with the sympathy anyone would feel for the lessees.

It is manifestly clear that the parties in drawing up their lease did not anticipate the events that occurred. All the judges expressed their acute awareness that to decide against the lessees would inflict a manifest injustice on them. What then were the rival arguments?

The landlords' argument had the merit of attractive simplicity. Look at the demised premises, they said. They include the improvements, because in their licence after the fire the parties specifically provided that the demised premises should thereafter include all additions made to the premises in the course of any alterations. If you ask the question, what is the reasonable rent to be paid for the demised premises, there was a straightforward answer. If you have any regard for giving effect to simple language, the demised premises must include the improvements. If that works injustice on the lessees, then that is a misfortune they must bear. They cannot foist their misfortune on the landlords who contracted, perhaps fortuitously, for any advantage they might reap.

The trial judge thought that the independent surveyor was entitled to have regard to the improvements, wholly paid for by the lessees, and that, therefore, it would be unreasonable that the landlords should expect not only the ultimate benefit of the improvements, but in the meantime receive also an increased rent—and an increased rent arising simply because the lessees had made the improvements with the express licence of the landlords. If the law were simply a matter of declaring what would be a just result in the circumstances, few would cavil with that reasoning. But the courts are there to administer justice according to law, and the law relating to landlord and tenant (so far as Parliament has not intervened, as it has done so massively since the Second World War) is based upon what landlord and tenant agree between themselves.

Judicial approach

At the end of the day, the issue resolves itself into the judicial approach to language used by contracting parties. The words "a reasonable rent for the demised premises" are on the face of them unambiguous. Once the parties declared that the improvements were part of the demised premises, there was little room for argument that they could not be disentangled from the premises for the purpose of assessing the reasonable rent.

The rival argument is to construe the phrase "a reasonable rent" as meaning a reasonable rent of the demised premises as between the parties concerned, the one to pay rent, the other to receive it. In other words, the reasonable rent is something different from an open market rent fixed by, and only by reference to, what a willing lessee would be prepared to pay a willing landlord for the demised premises for the period in question. It should take into account the factual background against which the parties are contracting: which in the present case would include the demised premises in their original, unimproved state.

The bugbear

Inflation of course is the bugbear. If money values had not dropped in the seven years since 1968, the reasonable rent for the next seven would not come out at anything very different and no one would suffer. But we live in inflationary times.

Those who drafted the licence in 1969 and included the improvements in the demised premises might have anticipated the effect of that provision on the rent review clauses. Clearly they did not. But unless landlords and tenants are prepared to give *carte-blanche* to independent surveyors (and ultimately to the courts) to do what is fair in all the circumstances, they cannot complain that the specific language they use produces unfortunate results. However sympathetic judges are to unjust results and seek mightily to avoid them, they are ultimately the servants of the litigants who bring their unresolved legal problems to the courts. And few people would really want judges to be *sitting under the palm tree* administering that kind of uncontrolled justice and unsystematised law. They ask for decisions according to a sophisticated legal system—and on the whole that povides a moe just result, although very occasionally it produces injustice.

**United Scientific Holdings Ltd. v. Burnley Borough Council* [1977] 2 W.L.R. 806.

† *Ponsford v. H.M.S. Aerosols Ltd.* [1977] 1 W.L.R. 1029

Prince's menu fetches £280

A ROYAL MENU on which Prince Charles had written notes fetched £280 at an auction at "The World's Laregst Jumble Sale" at Olympia in aid of the Save the Children Fund.

The menu was presented to the fund by Mr. Ivor Spencer, president of the Guild of Professional Toastmasters. "Already a wealthy American has approached me to see if I will part with any more of my Royal menus, but they are not for sale," he said.

The menu was for a Silver Jubilee dinner at a private club in London in December. It included smoked salmon, lamb cutlets, fresh french beans, garden peas, roast and new potatoes, apple pie and cream or bombe praline, cheeseboard and celery, coffee, liquers and brandy, and wines.

The time to review results

RUGBY UNION

BY PETER ROBBINS

NOW THAT the season is over, the leading players are looking forward to a good rest after eight months' hard slog.

The off-season period gets shorter each year and the Welsh Lions going to Australia later this month will have been playing or training since July 1976.

Now is the time of the club dinners, the moment to review the clubs' results, and finances. With the game so popular today, running a club is like running a business and needs good management and particularly good financial administration.

The extraordinary thing about Rugby is that so many men of diverse skills are prepared to give their time out of sheer love for the game.

This tradition of service is a great strength but does not prevent the cycle of success and failure that most clubs undergo.

Coventry is one club at present in a trough from which they will eventually emerge, just as Cheltenham have done this season, at least on a relative scale.

Cheltenham were a recognised first-class club in the '50s and '60s and perhaps typical of several clubs who, surrounded by more successful neighbours, found their strength debilitated in the early '70s.

The sudden loss of players from a two-team set-up when the top clubs were stockpiling worsened other problems. Familiar names such as Bob Redwood, John Fidler, Paul Tate and Bob White moved to Gloucester, followed later by Mike Curran and John Hall.

Other players left for business reasons and so, after a good season in 1971-72, Cheltenham's playing record slipped to single figures in victories.

This was perhaps to be expected from young players and although the problem is common enough, the remedy may vary.

The first step Cheltenham took was to get Ben Edwards back from County selection, as team secretary. Edwards had served Ebbw Vale and Newport with distinction, and his zest and enthusiasm is legendary.

He is now chariman of a committee which has a broader base, and enjoys financial help and advice from local businessmen.

A further bonus was the arrival of W. P. Davies they former England centre, as headmaster of the Cheltenham College preparatory school.

Adrian Drake, a determined captain in the darkest days, says the club owe Davies a monumental debt for all his inspiration.

Having begun to reshape its administration, Cheltenham began to recruit more local players, and set up a sound link with the local clubs. So the locals are now prepared to lend their best players and this must be good for all concerned.

The early depression has given the club new strength and a new spirit. The victories this season may not have been as many as hoped, but the cricket scores against have disappeared.

Notable wins have been made against Rugby, Abertillery, Cross Keys and Birmingham. Gloucester only scored one try, although Butler did add another 17 points with his boot.

No one in rugby likes to see a once-proud club in the doldrums season after season. Thanks to the good response from many people, the club rallied at the right time—and probably just in time.

Stampede is on for Leonardo

RACING

BY DOMINIC WIGAN

A STAMPEDE by ante-post gamblers eager to get on Leonardo da Vinci after his apparently effortless victory in Saturday's White Rose Stakes saw the Seven Barrows colt's Derby odds halved in a matter of minutes to 7-1.

Leonardo da Vinci, a 20-1 chance in most books until he jumped off for the Ascot race, could not have done it in more impressive style.

Only the doubts concerning the strength of the White Rose opposition and his ability to handle Epsom have prevented his price from shortening still further.

On the first point, I have little doubt that Leonardo da Vinci's performance was that of a potentially top-class colt.

Runner-up, Nicholas Bill, had, on his only previous appearance, impressed all who had seen him when slamming Valdee (subsequently a game second at Epsom) in a competitive maiden at Newbury.

Although he does not have the most impressive leg and a somewhat high action, Leonardo da Vinci has done all so far asked of him in exemplary style, and there is certainly nothing in his breeding to suggest he will not handle the turns, gradients and camber of Epsom.

Lupe, his dam, found the Surrey course no problem when always going far too well for State Pension (a predecessor of Leonardo da Vinci at Seven Barrows) in the 1970 Oaks.

Brigadier Gerard, his sire, was a particularly handy sort who would, I feel certain, have acted well at Epsom, had be been aimed at the Derby.

The £20,000-to-the-winner Royal Doulton Handicap Hurdle at Haydock yesterday proved a great success on its initial running, with the present champion, Monksfield, and a former champion Night Nurse, both being placed.

In an exciting finish, Colin Tinkler kept the lightly-weighted outsider Royal Gaye going, to hold off a particularly determined late thrust from Monksfield from whom he was receiving 2 st.

Turning to to-day's three meetings, the most interesting with an eye to the future is probably Brighton's classic Trial, the Hethersett Stakes, in which Derby entries Crimson Beau and Magnitude will be showing their paces.

Both may go well without proving capable of upsetting Caven Mill.

BRIGHTON

1.30—Jazz King
2.00—Tinted Green
2.30—Slitherum
3.00—Peach Melba*
3.30—Caven Mill***
4.00—Rocket Drive**
4.30—United

Omens bode well after year of the Good Guys

SOCCER

BY TREVOR BAILEY

IT HAS BEEN a highly satisfactory season for English football, possibly a really significant one. Recent performances by our national team under Ron Greenwood, including that Brazil match, have been most encouraging and bode well for the future.

This feeling of optimism is backed by events in the English League, not just in the First Division, but in all four, where success has come to managers who have put their trust in good positive football. The emphasis has been towards craft and away from crunch.

All too frequently in the past clubs with strictly limited ability have gained promotion through effort, running, and a hard, uncompromising defence; efficient machines adept at picking up points, but dull and often painful to watch.

This is a charge that cannot be levelled against Watford, who have majestically stormed their way out of the Fourth Division with 71 points and 85 goals. They have, under the talented Graham Taylor, combined success with entertainment and it would come as no surprise if this time next year they had gained promotion to the Second Division.

Wrexham were not only the outstanding side in the Third Division, but their performances in numerous cup-ties showed they possess that little extra class and character which makes all the difference.

Although Brighton almost made it with a brave late run during their memorable first season in the Second Division, their failure could well prove to be in their long-term best interests. They will spend another year there before trying to establish themselves with the elite. As it is, few would quarrel with the three teams who have gained promotion.

Bolton Wanderers have a neat composed style which almost took them into the First Division for the last two years, Southampton are managed by Lawrie McMenemy, respected and admired by all who are genuinely interested in the game, and the Spurs have scored 83 goals and played with considerable dash until the pressure mounted. They would surely have put the issue beyond doubt much earlier if Jennings had still been in goal and they had not chosen to ignore the necessity of having one tall, commanding central defender.

In the First Division, Nottingham Forest have taken both the title and the League Cup with a slick, quick brand of "cultured" football, while Liverpool in their more measured way should retain the European Cup. Next Saturday at Wembley, the FA Cup Final should, providing neither contestant freezes, be an exceptionally good match. The present Arsenal are the most exciting and exhilarating 11 they have produced for more than a decade, and, although Ipswich have slipped back this year, they are still an essentially attractive and relatively civilised club. It has been a year for the Good Guys.

Ivory Coast flights start next week

Financial Times Reporter

BRITISH Caledonian, the U.K. second-force flag airline, starts the first direct air link between this country and the Ivory Coast in West Africa on May 7, with a once-weekly Boeing 707 service between Gatwick and Abidjan via Monrovia in Liberia.

This extends British Caledonian's already big network of services to West Africa, which includes flights to Nigeria, Ghana, Liberia, Sierro Leone, Gambia and Senegal.

Mr. Alastair Pugh, British Caledonian's managing director, said the airline's aim was to boost the rapidly developing trade links between the Ivory Coast and the U.K.

Several major U.K. companies were already involved in major development programmes in the Ivory Coast, which had one of the strongest economies in West Africa. While the major part of the total traffic on the route would be business travel, the airline would be seeking to develop tourism to the Ivory Coast, which offered excellent hotels and beaches.

British Caledonian's subsidiary Golden Lion Holidays, was planning to produce a range of holidays to the Ivory Coast, probably for the next winter season.

Delta starts N. Atlantic flights

By Michael Donne, Aerospace Correspondent

DELTA AIR LINES of the U.S. has become the latest scheduled airline on the North Atlantic air route. It began flights yesterday between Atlanta, Georgia, and Gatwick Airport, London.

Delta is using the Rolls-Royce-powered Lockheed TriStar airliner for its daily service, which leaves Gatwick at 12.10 p.m. and arrives in Atlanta at 4.25 p.m. local time. On the return, flights will leave Atlanta at 6.30 p.m., arriving at Gatwick at 7.20 next morning. The flight provides direct connections to New Orleans.

Cheapest fares on the route will be £76 for a Budget Plan or Stand-By single ticket, London-Atlanta, or £214 return for an Advanced Purchase Return Excursion fare.

Disabled 'myth' attacked

THE MYTH that disabled people are a problem must be ended ended, Mr. Alf Morris, Minister for the Disabled, said.

Barriers which force millions of disabled to lead needlessly resricted lives must be removed, he told the annual convention of he National Society for Mentally Handicapped Children in London this week-end.

"The very last thing disabled people want is to regarded as objects of pity. They want to be a part of society and not apart from society. The "upstairs, downstairs" approach to the disabled is both disgraceful and intolerable."

There are at least 3.5m. physically handicapped people in Britain, he said. The problem of improving access for them was not, therefore, the minority problem it might appear.

TWA Tristar on display

TRANS WORLD Airlines displayed the pride of their fleet at Heathrow Airport yesterday when their first Lockheed TriStar jet went into operation.

The jet will fly between London and New York on a regular service replacing their Boeing 747 jumbo jets.

Bigger wheat harvest forecast

WITHIN 20 years Britain's farmers will be growing half as much wheat again from the same atrea of land as now, says Mr. John Bingham of the Plant Breeding Institute at Cambridge.

New and improved wheat varieties will increase yields by one per cent. a year for the next 20 years he said yesterday. A further increase of 1 per cent. a year would come from improved farming methods.

The cumulative effect would add up to a 50 per cent. increase within 20 years with farmers growing 9m. tons of grain.

Tory move to preserve drivers' hours

Financial Times Reporter

THE Scottish highlands and other rural areas should be exempt from European Economic Community regulations on drivers' hours until the roads are improve, suggests a report published yesterday.

The report, prepared by a policy commitee of the Scottish Conservative and Unionist Association, says that the cost of limiting drivers' hours would be too expensive for the transport and distribution industry.

These limits should be introduced only when the standard of roads are comparable to those in the south of Britain, it argues.

Women have only 17% of council seats

Financial Times Reporter

WOMEN are still substantially under-represented on county councils in England and Wales, a new study shows.

The study, by Mr. Stephen Bristow of Manchester Polytechnic, found that women accounted for almost 17 per cent. of county councillors. This was only marginally better than the level of participation on county councils before the 1974 local government re-organisation.

Women councillors were more likely to be Conservative and come from affluent residential areas especially in the South of England.

New pit record

MINERS at Hem Heath Colliery, near Stoke-on-Trent, have broken an 11-year-old record by producing 27,429 tons of coal in a week. Output per man-shift also reached a new high, 3.56 tons, against a previous best of 3.50.

TV/Radio

† Indicates programmes in black and white

BBC 1

6.40-7.55 a.m. Open University. 9.38 For Schools, Colleges. 12.15 p.m. Trem. 12.45 Midday News. 1.00 Pebble Mill. 1.45 Ragtime. 2.00 You and Me. 2.14 For Schools, Colleges. 3.15 Songs of Praise. 3.53 Regional News for England (except London). 3.55 Play School. †4.20 Champion the Wonder Horse. 4.45 Goober and the Ghost Chasers. 5.05 John Craven's Newsround. 5.10 Stopwatch.

5.40 News.
5.55 Nationwide (London and South East only).
6.20 Nationwide Football Final.
6.50 The Feather and Father Gang.
7.40 It Ain't Half Hot Mum.
8.10 The Standard.
9.00 News.
9.25 Play for Today.
10.45 Tonight.
11.25 Parents and School.
11.50 Weather/Regional News.

All Regions as BBC-1 except at the following times:—

Wales—5.55-6.20 p.m. Wales Today. 6.50 Heddiw. 7.15 Teithi'r Tir. 7.45-8.10 Tomorrow's World. 11.50 News and Weather for Wales.

Scotland—5.55-6.20 p.m. Reporting Scotland. 7.40-8.10 The Good Life. 10.45 History Is My Witness. 11.20 The Regional Vote. 1.20 a.m. News and Weather for Scotland.

Northern Ireland—3.53-3.55 p.m. Northern Ireland News. 5.55-6.20 Scene Around Six. 11.50 News and Weather for Northern Ireland.

England—5.55-6.20 p.m. Look East (Norwich); Look North (Leeds, Manchester, Newcastle); Midlands Today (Birmingham); Nationwide (London and South East); Points West (Bristol); South Today (Southampton); Spotlight South West (Plymouth).

BBC 2

6.40-7.55 a.m. Open University.
10.30 On Union Business.
11.00 Play School.
2.15 p.m. Other People's Children.
2.20 Having a Baby.
3.30 The Living City.
4.35-6.35 Open University.
7.00 News on 2 Headlines.
7.05 A Woman's Place?
7.30 Newsday.
8.10 Chronicle.
9.00 Rhoda.
9.25 The Man Alive Report.
10.15 Living on the Land.
10.40 Late News on 2.
10.50 The Old Grey Whistle Test.
11.30-12.00 Closedown: Martin Jarvis reads "Here I Love You" by Pablo Neruda.

LONDON

9.30 a.m. Schools Programmes. 11.55 Beany and Cecil Cartoon. 12.00 Paperplay. 12.10 p.m. Stepping Stones. 12.30 Parent's Day. 1.00 News. 1.20 Help! 1.30 Crown Court. 2.00 After Noon. 2.25 Sam. 3.20 Disappearing World.

4.20 Runaround. 4.45 Magpie.
5.10 Sportscene.
5.45 News.
6.00 Thames At 6.
6.35 Crossroads.
7.00 The Six Million Dollar Man.
8.00 Rising Damp.
8.30 Armchair Thriller.
9.00 ITV Playhouse.
10.00 News.
10.30 English National Opera Gala.
11.20 Man and Woman.
12.00 The Andy Williams Show.
12.25 a.m. Close: Neville Jason reads a poem by Edwin Muir.

All IBA Regions as London except at the following times:—

ANGLIA

1.25 p.m. Anglia News. 2.00 Houseparty. 5.15 Emmerdale Farm. 6.00 About Anglia. 7.00 Challenge of the Sexes. 7.30 Get Some In! 11.30 What We Have Done Is a People Problem. 12.25 a.m. Christians in Action.

ATV

1.20 p.m. ATV Newsdesk. 5.15 Laverne and Shirley. 6.00 ATV Today. 7.00 Emmerdale Farm. 7.30 England Their England: Emma. 11.30 Marcus Welby M.D.

BORDER

1.20 p.m. Border News. 2.00 Houseparty. 5.15 Out of Town. 6.00 Lookaround Tuesday. 7.00 Emmerdale Farm. 7.30 Get Some In! 11.30 Baretta. 12.25 a.m. Border News Summary and Weather.

CHANNEL

1.18 p.m. Channel Lunchtime News. 5.15 The Flintstones. 6.00 Report at Six. 7.00 Treasure Hunt. 7.30 Charlie's Angels. 10.28 Channel Late News. 12.00 Oscar Peterson Presents. 12.25 a.m. Commentaires et Previsions Meteorologiques.

GRAMPIAN

[illegible]

GRANADA

[illegible]

HTV

1.20 p.m. Report West Headlines. 1.25 Report Wales Headlines. 2.00 Houseparty. 5.15 Popeye. 5.20 Crossroads. 6.00 Report West. 6.15 Report Wales. 6.30 Emmerdale Farm. 11.30 Police Woman.

HTV Cymru/Wales—As HTV General Service except: [illegible]

HTV West—As HTV General Service except: [illegible]

SCOTTISH

1.25 p.m. News and Road Report. [illegible] 7.00 Emmerdale Farm. 7.30 Get Some In! 11.30 The Andy Williams Show. [illegible]

SOUTHERN

1.20 p.m. Southern News. 5.15 Betty Boop. 5.20 Crossroads. 6.00 Day by Day [illegible] 7.00 Emmerdale Farm. 7.30 Get Some In! [illegible] Weather Forecast [illegible]

TYNE TEES

[illegible] 7.00 Emmerdale Farm. [illegible] Police Surgeon. [illegible]

ULSTER

[illegible] Friends of Man. [illegible] 7.00 Emmerdale Farm. 7.30 Get Some In! 11.30 Garden-[illegible]

WESTWARD

1.20 p.m. Westward News Headlines. 5.15 The Flintstones. [illegible] 7.00 Treasure Hunt. 7.30 Charlie's Angels. [illegible] 12.00 [illegible] 12.25 p.m. [illegible]

YORKSHIRE

1.20 p.m. Calendar News. 5.15 Challenge of the Sexes. 6.00 Calendar (Emley Moor and Belmont editions). 7.00 Emmerdale Farm. 7.30 Get Some In! 11.30 Drive-In.

RADIO 1 247m

(S) Stereophonic broadcast

[illegible]

RADIO 2 1,500m and VHF

[illegible]

RADIO 3 464m, Stereo & VHF

[illegible]

RADIO 4 434m, 330m, 285m and VHF

[illegible]

BBC Radio London 206m and 94.9 VHF

[illegible]

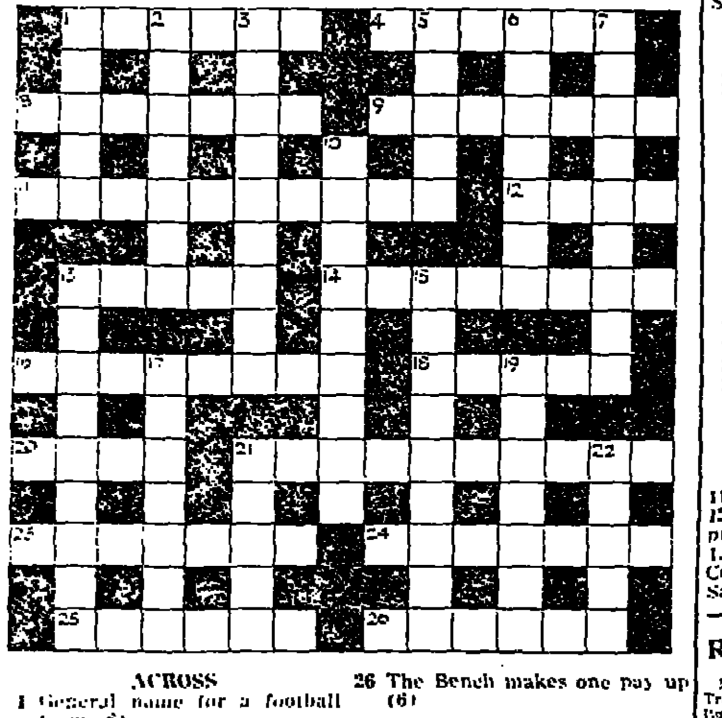
London Broadcasting 261m and 97.3 VHF

[illegible]

Capital Radio 194m and 95.8 VHF

[illegible]

F.T. CROSSWORD PUZZLE No. 3,656



ACROSS

1 General name for a football team (6)
4 Express disapproval of the thing (6)
8 Wood for a novice to burn (7)
9 Mr. Weller told us to be very careful of them (7)
11 Long for a car in Berks (10)
12 Dark flowing rapid roller (4)
13 Dad's gratitude for Italian dishes (5)
14 Need vice be changed in witness ? (8)
16 Words put together may mean a stretch (8)
18 Snares for one's belongings (5)
20 Moves smartly back for a short trip (4)
21 You can read or watch the start of it (10)
23 Hardy character shows skill in [illegible] (7)
24 To us the objet d'art is odd (7)
25 Appetiser associated with Yorkshire (6)
26 The Bench makes one pay up (6)

DOWN

1 French description of Tommy Atkins (5)
2 A chap gets on, but he copes (7)
3 Bear in mind, you have to amuse (9)
5 Stake something misleading (5)
6 Not on side, but discreet to finish (7)
7 Nicklaus, Watson, Player—we give them a big hand (5, 4)
10 Browse endlessly for warning to chiefs (10)
13 Musical kidnapper (4, 5)
15 Preface with dictator present (9)
17 Trail round the end without a help to climbers (7)
19 Unbeliever at the robbery (7)
21 Wealth is to me the solution in brief (5)
22 Invective for a bachelor to employ (5)

The solution of last Saturday's prize puzzle will be published with names of winners next Saturday.

Grand Palais, Paris

The last works of Cezanne

by WILLIAM PACKER

Paris hardly needs to encourage us further to persuade us to visit her, but this summer, for all too short a time, she is wearing a particular *ornament* that for the moment quite outshines the rest. To be in Paris these next few months (until July 23 in fact) and yet fail to see the magnificent *Cézanne* exhibition at the Grand Palais would be crass and ignorant a mistake.

"Cézanne: les dernières annees (1895-1906)" *marks* the achievement by its organiser, William Rubin of the Museum of Modern Art in New York, of an ambition he has entertained since the early 'fifties. He has had the pick of most of the world's greatest collections, and *has assembled* at last under one roof the greater part of Cézanne's work in the last and most important phase of his career. There are certain variations in content from the previous showings in Houston and New York, not all of them *unimportant, and not all* to our disadvantage, but the substance of the exhibition is now in Paris, its final and only European call. The opportunity it presents is unlikely to be repeated this century, if at all, for the contiguous interests of security, *insurance* and *conservation* now argue strongly against the bringing of such prime material together; and it is more than possible that we are living through the last days of the major, comprehensive, definitive show.

Paul *Cézanne* is the *great* pivotal figure of Modern Art, the heir to the classical strain in the *European* tradition, his influence all-pervasive, informing all subsequent developments of any significance in one way or another. His is the technical *and moral example that no artist* can afford to ignore: truthful to his vision, devoted to the study of Nature, above all perservering in the face of early inadequacy and critical incomprehension. Whether or not he was the greatest artist among his con*temporaries is, of course*, another question: Monet certainly now stands at his shoulder as the other great, long-lasting eminence, though that recogni*tion was slow in coming*; Degas had infinitely the more natural facility, and Van Gogh the more immediate emotional appeal. It would be very hard to choose between them on the strength of individual achievement. And it is the common heresy of critical scholarship to equate greatness with influence. With Cézanne, however, that influence is perhaps enough to place him first *among his equals*.

Painting did not come easily to him. He was no natural draughtsman, and some of his earlier efforts are embarrassingly *inept. His late essays* in the field of the grand classical figure composition, the Bathers that feature so prominently in this show, though unquestionably im*pressive and brave works*, are also markedly flawed and inconsistent, the drawings for them decidedly odd. Away from the direct confrontation with Nature, he seems to lose his way.

By the time he reached his middle fifties, however, the point in his career at which we join him here, the general technical battle was evidently well won, and, though he continued to doubt his progress until the very end of his life, his means and intentions already were floating free of the practical limitations. As he moves beyond mere fidelity into meta-physical inquiry, so we begin to concentrate with him upon the nature of experience, the sensation and *understanding of vision*, the realisation of the actual object, landscape or figure through the agency of its attempted equivalent in art.

The image is reduced under his analytical, simplifying scrutiny to reveal the fundamental and unifying structures of the natural world. The works are not hung chronologically, but loosely by association of subject-matter; and in the community of interests that sustained him in his last years the cross-references are readily picked out. The great still-lifes, of which there is a walfful, appear as landscapes in microcosm, and match the grandeur of Mont Sainte-Victoire; and the monu*mental portraits possess* the classical authority of the rocks and mountains, heads and skulls modelled with the same solidity as tree trunks and boulders. His *firmness* in the disposition of form and space, his control in fact, is his great legacy to us.

In so many respects he anticipates the future, in the distortion and manipulation of space, for example, and in the fragmentation of form and image. His importance to Cubism hardly needs stating, but the emphasis he thus placed upon the canvas surface, upon the paint itself and the identifiable, expressive mark, also links him directly, through the ramifications of Expressionism, to the Art of our own time.

The *abandonment of representation* was inevitable sooner or later in any case, but, given the degree of abstraction achieved by Cézanne, that logical step was taken within very few years of his death: but with him, confronting these late, rarified and exquisitely masterpieces, the moving thing is precisely that the reference to the external world is never abandoned, is indeed unthinkable, that always, *no matter how few and simple* are the strokes of water-colour upon the empty page, the flicker of light will still dance through the trees, or the mountain lower on the horizon. The soft, probing, broken line edges along the contour, teasing our binocular *vision to peer around the form* of the tree, flower or bridge, the small sensation conjured out of nothing. Though we are drawn indeed to examine paint and surface first, and to consider the act of painting as we pore over the autographic mark, we turn back at last to the ex*perience we share* with the artist, for it has been our own, even if it is only of a table piled high with apples.

A show like this has many peaks, but it turns for me on the room devoted to the paintings and studies of the Mont Sainte-Victoire; but preference *is* qualified immediately by the recollection of other treats. These will stay in the memory all the more clearly for the help *of "Cézanne: the Late Work"* (Thames and Hudson: 416 pages; 427 illustrations; £20), a splendid *collection* of essays on various aspects of the subject by a number of distinguished commentators and edited by William Rubin. It is exhaustively *illustrated, with many excellent* colour plates, and includes the catalogue to the New York showing. It remains nevertheless no substitute for the real thing.

Portrait of Joachim Gasquet (1896-97)

Covent Garden

Le nozze di Figaro

The revival of John Cox's production of *Le nozze di Figaro* at Covent Garden on Friday was notable for the debuts of two interesting artists, both of whom have excellent reputations on the Continent, and both of *whom, after a slightly uncertain* start, fully lived up to those reputations. Robert Hager, the Salzburg-born conductor, has a wide range of musical sym*pathies, but his deepest affec*tions are apparently reserved for Mozart, Wagner and Strauss. He gives a genial, if fairly superficial account of the *Figaro* overture, and then takes time to achieve the ideal balance between indulgence to the singers and respect for the composer's intentions. This balance once established, however, is maintained with the skill of a first-class juggler.

The miraculous second-act finale flows with seamless inevitability, while the chain of numbers making up the first half of the third act is also linked in precise gradation. Mr. Hager does not emphasise the more serious implications of text or setting. He is content to take Da Ponte as he stands, without the re-injection of Beaumarchais' social or political beliefs, and he allows Mozart to speak, as it *were, without the benefit of* interpretation. The orchestra plays well for him, and the end result *is a performance that*, stylishly reserved on the surface, by no means lacks heart underneath. For instanc, the Count's apology to his wife at the end is quite genuine: he will not deceive her again—until the next time.

Celestina Casapietra, the other newcomer to Covent Garden, sings the Countess. The Berlin Staatsoper's Cleopatra, Reiza, Fiordiligi and Elsa, she, like many another soprano before her, betrays some discomfort in "Porgi amor," but that hazard *once negotiated, she goes from* strength to strength. Nearly as volatile in temperament as Almaviva himself, this Countess is recognisably the same person *as the Rosina of Il barbiere di Siviglia*, a Rosina grown wiser and sadder, perhaps, but one no less spirited than her younger personification. Miss Casapietra's *voice has an agreeable edge to* it, but she can pour out the tone as smoothly as cream when she wishes, as in "Dove sono" or the Letter duet with Susanna.

Susanna is sung by Teresa Stratas who, if she acted—and reacted—a trifle less vigorously, would be among the two or three finest living exponents of the role. As it is, the many marvellous moments in her performance, including a beautifully sincere and *touching "Deh vieni, non tardar,"* are interspersed with overplaying that teeters on the brink of farce of melodrama. Richard Van Allan's resourceful Figaro, no revolutionary but an individual determined on survival, is nicely matched with Thomas Allen's fine-drawn Count, a man at the mercy of his impulses. Cherubino, in Ann *Murray's lively impersonation* shows signs of growing up to be just such another attractive rake. Forbes Robinson (Bartolo), Elizabeth Bainbridge (Marcellina), Paul Crook (Basilio) and Yvonne Kenny (Barbarina) contribute to the audience's entertainment.

ELIZABETH FORBES

Festival Hall

The Rite of Spring

by RONALD CRICHTON

The *London Symphony and* London Philharmonic both made notable contributions to the Bank Holiday week-end. Eduardo Mata's Sunday concert with the LSO ended with a performance of Stravinsky's *Rite of Spring* remarkable for the way the violence was controlled with no loss of impact. Most of all this was felt in the Sacrificial Dance at the end, often played in a frenzy recalling the kind of *modern dance* that *tends to col*lapse inwards and downwards. For once there was a clear link with the outward and upward style of classical dance movement for which Stravinsky's later stage works reveal a deep sympathy. The long road to *Agon* suddenly seemed much shorter.

In the first part of *The Rite* Mr. Mata, though his rhythms were admirably crisp and accurate, insisted on the importance of line to the extent of allowing some of the softer ones to come over too loud. There *were a few tiny fluffs* in the wind: no doubt *The Rite* is not the most comfortable score to play soon after returning from a foreign tour under another conductor. In Rimsky-Korsakov's version of Mussorgsky's *Bare Mountain*, at the beginning, the lines had fairly glowed: the rapprochement of the two works and the revelation that by the time of *The Rite* Stravinsky had *still one foot* in Rimsky's world were surely intentional.

In Liszt's A major Piano Concerto, Tamas Vasary played the quieter pages (which include *some of the most ornate writing* in the concerto) with sensitive distinction. He does not have the cutting power for the more extrovert passages; nevertheless, with *strong support from conduc*tor and orchestra this strange work, which can seem weak, maudlin or vulgar, came over as one of Liszt's most original inventions.

*

Barenboim's Schubert programme with the LPO on Friday, like Rosen's Elizabeth Hall recital the previous week, was a high-level Schubertian occasion that did not entirely hit the mark. The orchestral playing was excellent, and much of the conducting was, as one would expect, sensitive, passionate, highly musical. Yet in both the Unfinished and the C major *Symphonies Barenboim's elasti*city of phrasing sometimes went beyond spontaneity into mannerism, while the textures, without being thick, were warm in a way which suggested central heating where a nice, cosy wood stove would do. If nothing else, *the Schubert Year may remind* us how few major performers find and hold the simplicity in which this composer's unaccountable mysteries can flower naturally.

St. John's, Smith Square

Tallis Scholars—John Alldis Choir

by NICHOLAS KENYON

Two series of choral concerts already noticed on this page came to an end over the week-end: the Tallis Scholars' survey of their eponymous composer's *rich output, and the John Alldis* Choir's pair of London Music Digest concerts devoted to 20th-century music.

In view of the fact that the director of the Tallis Scholars, Peter Phillips, argues at length in the current *Early Music magazine and in the programme* for his splendidly organised Tallis series that the attempt to recapture the actual sound of 16th-century polyphony is both *impossible and undesirable* (and that modern performance must be determined by the nature of modern voices and on the director's "personal taste"), it was somewhat surprising to find the Tallis Scholars performing all the music in the high pitch *transpositions advocated in the* cause of fidelity to the past, not convenience to the present, by David Wulstan.

For except in the glorious 40-part motet *Spem in alium nunquam habui*, in which the choir was enlarged and the *sound of the girl trebles in all* eight choirs soaring repeatedly to high Cs was most effective; it was all too clear during the rest of Saturday evening that the top voices of the choir were sorely taxed by the pitches chosen. The men made a most *mellifluous English-choral-scholar* sound (the four hymns from Archbishop Parker's psalter were beautifully done), but the problems of integrating this timbre *with the accurate yet strained* and thin sound of the high trebles had not begun to be solved.

Peter Phillips also declared in his article, apropos early Tallis, that "beauty and balance of sound will project the heart of *this style of writing, which is its* sonority," and it was clear from these performances that a static, well-chorded, carefully co-ordinated sequence of sounds had been aimed for and to a large extent achieved. Yet this music deserves more: each stone in a *Gothic arch is of* little interest compared to the rise and fall of the whole edifice, and there was little architectural planning or sense of progress in Phillips' meticulous direction.

Myself, I feel—no, I know—that the heart of this music is in *its texts; to be told that "indeed* as often as not the words are not important"; to have no texts or translations provided in the substantial programme and *to have no response to even such* audible phrases as "ut tibi laudes debitas. Alleluia" in the singing seriously reduced the value of even such a well-planned, imaginatively-realised enterprise.

It would have been interesting *to hear the John Alldis Choir* sing high-pitch Tallis: their impeccable professionalism and accuracy would surely have surmounted that problem in the same spirit as they brushed aside on Sunday the fiendish difficulties of Busotti's intricate, attractive *Frammenti all'Italia* (Nos. 1 and 3 were given) and Messiaen's voluptuous *Cinq rechants* (surely one of this century's greatest works in any musical medium). Less successful, both as piece and performance, was Nono's *Sara Dolce Tacere, and I cannot honestly* say that Schoenberg's heavily mid-European 12-note humour in the *Three Satires* Op. 28 was actually funny. But in an encore from the Op. 27 songs of the same composer, and in a tiny, deeply romantic canon by Webern (his Op. 2, from 1908), the singers were genuinely affecting. John Alldis directed with complete sureness of touch, pulling each piece together and *moulding it into its own* coherent unity.

Sadler's Wells

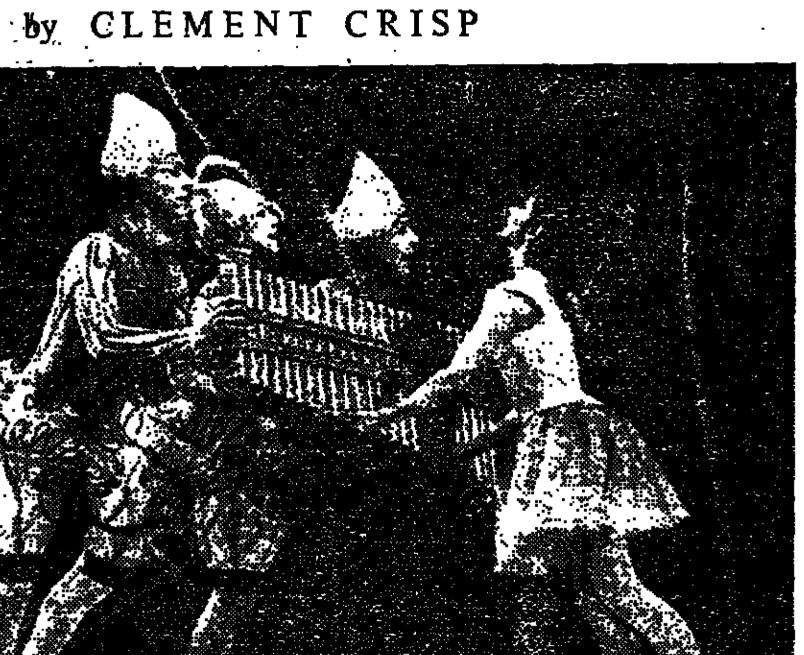
Solitaire

by CLEMENT CRISP

When *Solitaire* last turned up in the programmes of the Wells Royal Ballet its charms looked *thread-bare*. It is a very early MacMillan piece, dating from 1956, agreeable and bright with young promise, but its theme of wistful adolescent dreaming was difficult to sustain. Margaret Hill, the original Girl who summons up fantasy companions, had a *delicate* wit; later interpreters (and they were legion) too often indulged in winsomeness, that least attractive of theatrical qualities. On its last *showing* with SWRB, I dismissed *Solitaire* as a ballet that "didn't work any more."

But MacMillan and Barry Kay (who has redesigned it), and Lynn Seymour who led the revival performance on Friday night, know better. Thanks to *their joint efforts*—MacMillan freshening the choreography; Kay reasserting its essential identity as a fantasy; Seymour playing it for the sweetest, zaniest comedy—*Solitaire* is quite rejuvenated. Barry Kay has set the piece under a vast, *inflated, clear plastic* tree—something after the fashion of that trendy furniture of the 1960s which looked as if it could double as a life-raft. The dreaming heroine is dressed as Degas' *Petite danseuse de quatorze ans*; her imaginary playmates are *harlequins, in* beautiful adaptations of traditional circus-clown dress, frilled, ruffled and ruffed, their faces chalk-white under fantastic perruques—they are just the sort of beings that an imaginative child might *invent* as partners in her fantasies.

Seymour, looking not a day older than Degas' *petit rat*, justifies the ballet. Because she cannot put a *sensitive* foot wrong in MacMillan choreography, her tricks and embroideries on the text are exacty right. It takes a mature artist to be able to *present* youthfulness on stage as anything more than tedious innocence; Seymour knows how children behave, and can translate that knowledge into dance in a positive act of creation. Entirely magical is the scene following the *pas de deux*. She gazes into the *wings after her* erstwhile partner, as Lois Strike bounces into the Polka. The music's perkiness catches her by the toes; her feet twitch and start to respond *to the* rhythm, and the mood has been changed with absolute finesse. What an artist, and what a joyous, illuminating performance!



David Ashmole, Lois Strike, Bernd Berg and Lynn Seymour

Solitaire shares a programme with Peter Wright's justly acclaimed staging of *Giselle*. (I would add, in passing, that the production will be worthier of acclaim if it is decently lit. *Solitaire* was not enhanced by the *lighting it received; Giselle* positively suffered at the two performances I saw. I had supposed that when SWRB *took up* permanent residence at the Wells, stage rehearsal time would enable the productions to be shown with care. If the *Sylphides* and *Giselle* lighting is anything to go by, the company would be well advised to decamp in search of a theatre *better able to* present the ballets properly. As a further moment of carping I would note that the set for *Giselle* Act 1 has a line drawn across it as a *kind of* false horizon.

Peter Wright is careful of *Giselle's* dramatic values: the members of the hunting party have sharper *identities* than heretofore; the scene of Hilarion's death has the right note of terror. On Friday night Marian Tait and Alain Dubreuil *led the performance*. Tait is a dancer of excellent qualities. Her style is unaffected, and the honesty and sheer good manners *of her technique are very attrac*tive. The opening scenes of her reading were rather bland, with no trace of that special temperament that could explain Giselle's intensity of feeling, and her death. But with the mad-scene Tait came into her own; it *was strongly played*, strongly communicated, and it led to a Wili of wining physical grace.

On Saturday night Galina Samsova and Desmond Kelly were the lovers. Samsova's generosity of style, the warmth of her dancing, were as appealing as ever. Kelly was supremely the philandering Albrecht, uncertain in *temper* and trapped *helpless* in his flirtation. As partner a ballerina could not ask for better: the big lifts in Act 2 were done with superb skill, and the dramatic raport with Samsova was exceptional. Incidental pleasures included Kim Reeder's *bright and beautifully finished* way with a solo in the peasant sextet—all the more welcome in that on the following evening one male performance was unacceptably hazardous—and the icy, implacable Myrtha of June Highwood.

Elizabeth Hall

Fires of London

by DOMINIC GILL

The Fires of London's programme on *Friday evening*, conducted by ePter Maxwell Davies, *was divided between* a staged performance of Davies's own *Vesalii Icones* for dancer and ensemble, and three shorter pieces for instruments alone or instruments with voice. One of these was the first London performance of a new work by Judith Weir, *25 Variations for Chamber Ensemble*—first conceived, the composer *tells us*, partly as the result of a fascination "by the form of classical variation sets, particularly Beethoven's."

There *is nothing* explicitly Beethovenian, however, in Miss Weir's methods of transformation: direct homage was evidently not intended. The *techniques* are hidden: the methods, in the manner of the Second Viennese School, more subtle, oblique. *It's an excep*tionally well-written piece: clearly scored, and clean to the ear. In 18 minutes, with six instruments and soprano, Miss Weir *achieves a nice variety of* gesture—and some delicate, pungent combinations. Three inner movements are framed by two movements with voice, settings of a Northern Scottish ballad, *The Great Silkie*—here perhaps the work's least successful aspect, a curiously dry and ungrateful vocal response, I thought, to such simple, powerful words?

Mary Thomas was the soprano soloist in the *Variations*, and Davies's *Tenebrae super Gesualdo*—still one of his most brilliantly conceived transformations, a web of instrumental mirrors and commentaries interleaved with a distillation for voice and solo guitar of the original material: *wonderfully* rich, infinitely sad. The evening had begun with *All Sons of Adam*, a Davies transformation new to me: barely five minutes long a tiny elaboration of a 16th-century anonymous Scottish motet, bittersweet fragment, beautifully played.

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Tuesday May 2 1978

Progress on Namibia

MR. SAM NUJOMA, President of the UN-recognised Nationalist movement in Namibia, has at least left the door ajar to further negotiations on the future of Namibia or South West Africa and for this the five Western members of the Security Council whose proposals form the basis of that negotiation should be relieved. The five — Britain, the U.S., France, West Germany and Canada — have been ferrying between Mr. Nujoma's South West Africa People's Organisation, SWAPO, and the South African Government for over a year. Earlier this month they published their proposals for a UN-supervised transition to elections and independence for the territory. At the beginning of last week, Mr. Vorster, the South African Prime Minister, accepted the proposals, albeit with some "clarifications." Four days later Mr. Nujoma replied, and though his response was superficially much less encouraging than Mr. Vorster's, he implied that negotiations should go on.

Achievement

Given the bitterness and suspicion which pervade politics to-day in Southern Africa, it would have been highly surprising if both sides had embraced the Western plan even after a year of preliminary negotiations. It is undoubtedly a major achievement for the West to have persuaded Mr. Vorster to move as far as he has. Less than a year ago, Pretoria was insisting on the inviolability of its own internal settlement based on apartheid. Now it has accepted a UN military and civilian presence, UN supervised elections, and the removal of all but a comparative handful of its 20,000 troops before those elections.

Mr. Vorster has effectively reserved his position on what should happen to the remaining troops once an election has taken place. He has steadfastly refused to allow Namibia's only effective port, controlled by South Africa under different juridical statutes, to become part of the agreement. But despite these South African reservations, SWAPO in comparison seems more obdurate. In his reply to the Western proposals Mr. Nujoma has suggested he wants to reopen negotiations not only on the troops issue and on the port of Walvis Bay, but also on the exact relationship between the South African-appointed interim Administrator and the proposed UN Commissioner.

The Western negotiators privately say they have found Mr. Nujoma a stubborn and not especially able negotiator. But whether this is true or not, it would be a mistake for the Western powers to let such judgments stand in the way of further negotiations. They have shown a tendency to do this when they say (as Britain and America said, perhaps now to their regret, when they published their proposals for a Rhodesian settlement last September) that the package they have negotiated must now be taken as a whole without any major modification.

At least some of SWAPO's fears are justified. It may be that some of its members would rather not face democratic elections, either because they have come under Soviet influence or because they prefer the gun to the ballot box. But it is understandable that SWAPO should be suspicious of the timing of South Africa's acceptance of the Western proposals, coming as it did within hours of the arrest inside Namibia of key members of SWAPO's executive under emergency powers which now allow detention without trial. It is not surprising that SWAPO wants to be sure that South Africa's acceptance of the proposals is not merely a tactical move designed to improve Pretoria's image in the international community — and perhaps to provoke SWAPO into rejecting the Western initiative.

Proviso

Fortunately the Namibian situation is a little less urgently in need of an immediate solution than Rhodesia and the Western powers have done well to get this far in a year. The front-line African states still back the Western efforts: that, apparently, includes the Soviet-backed Government in Angola. The effort to bridge the gap between the two sides must go on, with the proviso that the Western powers should heed the lesson of Rhodesia and not tie the strings on their package too tight, too soon.

A strategy for electronics

TEN YEARS ago the British Government and the electronics companies recognised three things—that the development of integrated circuits would have a revolutionary effect on all segments of the industry, that the U.K.-owned component makers were too small to exploit the new technology effectively and that Government support would be needed to maintain any significant presence in the field. Since then, the expected revolution has taken place and the British position remains weak: a good deal of public money has been spent, with little apparent success, and sporadic attempts to bring the companies together have come to nothing. Now the Government is on the point of committing even bigger sums to the industry. The question is whether the weaknesses of past assistance schemes—a lack of clarity about objectives and method—can be avoided.

Infrastructure

The matter is urgent because of the speed with which technology is advancing. The big-volume manufacturers of integrated circuits, mainly in the U.S., are able to incorporate on a single "chip" circuits of ever-increasing complexity. Instead of simply acting as component suppliers, they are in a position to design and manufacture systems and equipment.

The fear in the U.K., as in other European countries, is that without an indigenous integrated circuit capacity, the established makers of electronic equipment could eventually be overwhelmed by the large, vertically integrated electronics companies of the U.S. and Japan. That is why, for example, the German Government, despite its aversion to state subsidies, is spending large sums to bolster its national industry—though the sums are dwarfed by what the Japanese are doing. The aim is to improve the infrastructure on which the whole of the electronics industry is thought ultimately to depend.

The British industry falls into three sectors — the nationally-owned companies (GEC, Plessey and Ferranti), two foreign-owned companies which have substantial manufacturing and research facilities in the U.K. (ITT and Philips), and several other multinationals who do some production here: a large proportion of the country's requirements is imported from the U.S. It has seemed obvious for years that the three British companies should pool their efforts, not merely to secure economies of scale in production and research, but to make better use of the relatively few engineers and scientists who are expert in the field. Up to now a variety f conflicts has kept them apart, but the commercial and financial pressure for collaboration has become much stronger.

Such collaboration is certainly desirable, but even if it happens the British-owned companies cannot be expected to establish themselves as mass-producers of standard circuits. In theory it might be possible to create a European consortium of electronics companies whose internal requirements would provide the base load for a big-volume operation, but even if the political and other obstacles could be overcome, the chances are that vast sums would be spent in a vain attempt to catch up with the Americans and the Japanese, instead of capitalising on the areas where the European electronics industry is strong. A more promising approach would be to develop collaborative arrangements with the established mass-producers. For the U.K. this means encouraging Philips and ITT to expand their operations and inviting other multinationals (including the Japanese) to come in.

Foreign companies

In an industry which is so international in character it makes no sense for a small country to draw up a strategy in purely national terms. Government assistance is needed to maintain a design and production capability in the U.K., but not to beat the big-volume producers at their own game. Support from public funds needs to be highly selective and based on a realistic view of the U.K.'s role in the world electronics industry.

Behind the IMF scenes in Mexico City

BY GUY DE JONQUIERES AND PETER RIDDELL

THE world's finance ministers are apparently not much nearer a detailed agreement on how to deal with international economic problems after the two-day weekend meeting of the International Monetary Fund interim committee in Mexico City. This produced the same kind of bland communique as other similar talks in the past two years. Everyone agreed that the outlook was unsatisfactory and that co-ordinated action should be taken, but beyond that there have been few signs of any significant progress towards a common approach which has any real meaning.

The differences between the main industrialised countries, both on priorities and on measures, remain, even if there is agreement on the goals of higher growth, currency stability, energy conservation, avoiding protectionism and improving capital flows to developing countries. The main division is still between the U.S. and Germany though their relations are friendlier than earlier this year. Mr. Michael Blumenthal, the U.S. Treasury Secretary, again called for action to promote faster growth, to which the West German ministers remained cool, stressing the need for currency stability.

These differences were reflected in a muted form in a comment by Mr. Denis Healey, the Chancellor of the Exchequer and chairman of the interim committee. He said a minority of the committee (though not naming West Germany) felt that currency instability was a principal cause of the slow growth of the world economy and that collective action was therefore needed to restore equilibrium. However, Mr. Healey suggested that action on currencies alone was doomed to failure; a majority of the committee, including the U.S., felt that while currency instability was a factor in economic sluggishness, changes in parities were playing a part in the adjustment process.

The result of these differences of emphasis is that little progress was made on the various proposals for international monetary reform (few of them new) which have been suggested in recent months. The discussions focused on the separate, but related, aims of stabilising the dollar in relation to other major currencies, and stabilising currencies within the EEC.

Independent initiative

Only a few months ago, the idea of the EEC taking an independent initiative in the monetary field would have been dismissed as quixotic. But it has gained fresh political impetus from the discussions between Heads of Government of the Nine in Copenhagen three weeks ago, when Chancellor Helmut Schmidt surprised his colleagues by abruptly reversing the negative attitude which Germany had displayed towards such proposals in the past.

However, the EEC Governments entered the Mexico City meeting only loosely united. They differed both in their attitudes towards specific proposals and in their assessments of how much the meeting could contribute to a return to monetary stability. The U.K. has taken the view that the talks could constitute an important stepping stone towards a multilateral solution. But several other members of the Community have been sceptical about what can be achieved as long as the U.S. remains unwilling to tackle the problem of the dollar seriously. So they have been looking with increased interest at what the EEC might be able to accomplish on its own.

Herr Schmidt has recently been at pains to allay suspicions, notably in Britain, that his ideas were intended to be hostile to the U.S. But his thinking has undoubtedly been influenced by impatience with the indecisiveness of the Carter Administration, and disappointment with the failure of the currency measures arranged between the U.S. and Germany last March to impress foreign exchange markets. His view appears to be that the EEC should aim at arrangements capable of working on their own, but which would be compatible with any future moves on currency reform agreed on in the broader international framework of the IMF.

The precise form which such arrangements might take has yet to be decided. But what Herr Schmidt appears to have in mind is the creation of an EEC currency "zone," sufficiently cohesive to prevent speculative flows of dollars into individual member currencies. It also should inhibit gyrations between exchange rates within the EEC, which both he and President Valery Giscard d'Estaing of France believe to be a major factor constraining the Community's economic growth.

The first step would be to link freely-floating currencies like sterling and the French franc to the "snake," whose EEC members are Germany, the Benelux countries and Denmark. The scheme might be extended beyond the Community's borders to include Austria, Switzerland and Norway (which is also in the snake). On the other hand, the Chancellor is said to doubt whether Italy would be economically fit enough to participate.

The strict disciplines observed by the snake members would remain. But weaker currencies could be allowed wider margins of fluctuation, and a form of "crawling peg" mechanism might be devised to permit a controlled depreciation by countries with above-average inflation rates. Fluctuation margins would be defined not in terms of other currencies, but in terms of the European Unit of Account, which is based on a basket of all Community currencies and is therefore less prone to volatile movements.

The Unit of Account would also be elevated from its current role as mere accounting unit into a medium of settlement between EEC central banks, to which it could be issued in exchange for deposits of gold or Special Drawing Rights. It would thus replace the dollar as the medium most commonly used for official settlements between EEC States. At a later stage, it could perhaps also be used for intervention in foreign exchange markets. But that presupposes substantial progress towards a genuine monetary union, in which the Unit of Account had been established as a fully-fledged reserve asset acceptable to third countries.

This edifice would have to be underpinned by substantial reserves to be credible to the foreign exchange markets and to prevent individual currencies from slipping out of their margins under pressure from speculative flows. Herr Schmidt has apparently signalled his willingness to consider committing at least part of Germany's reserves to the purpose. But it remains unclear whether they would be pooled with those of other countries under the authority of a central fund or channelled through closely-co-ordinated intervention between central banks. Altogether, the idea of pooling could be very limited in scope or very far reaching. It is not at all clear how far Herr Schmidt is prepared to go.

Strictly speaking, few of these proposals are really new. Many can be traced to earlier schemes for EEC monetary integration—such as the French-inspired Fourcade plan drawn up in 1975—which enjoyed a brief blaze of glory before fizzling out in the face of strong German resistance.

It has yet to be seen whether Herr Schmidt's ideas command the support of his own ministers and the powerful Bundesbank, which may need a good deal of persuasion to approve a sizeable transfer of the reserves under its control. In the past, German authorities have displayed marked reservations about providing financial assistance to countries like Britain and Italy, whose economic crises they have attributed chiefly to the pursuit of irresponsible fiscal and monetary policies. The view in Bonn has been that pumping money into such poorly-run economies was like pouring so much water down a drain.

It would be fair to expect, therefore, that Germany will demand some assurances from its partners that they will exercise more rigorously disciplined economic management than in the past as part of the price for underwriting any new currency arrangements.

It is precisely these points which concern some other members of the EEC. In London, for example, there would be a considerable reluctance to include sterling in an enlarged snake unless this were combined with a genuine transfer of resources within the EEC. This would effectively amount to a new Marshall Plan with the U.S. role of the late 1940s being taken over now by Germany. But this appears to be some way away from what Chancellor Schmidt is proposing and other countries are less happy about saving Germany from the consequences of its persistent surplus. The most that the U.K. appears to be willing to concede at present is greater consultation on foreign exchange movements within the EEC.

The British view is that the main emphasis should be on stabilising the dollar though there is no common view on how this should be done. The agreement at the Mexico City meeting that the Fund should exercise tighter surveillance over exchange rate practices of member nations begs most of the important questions.

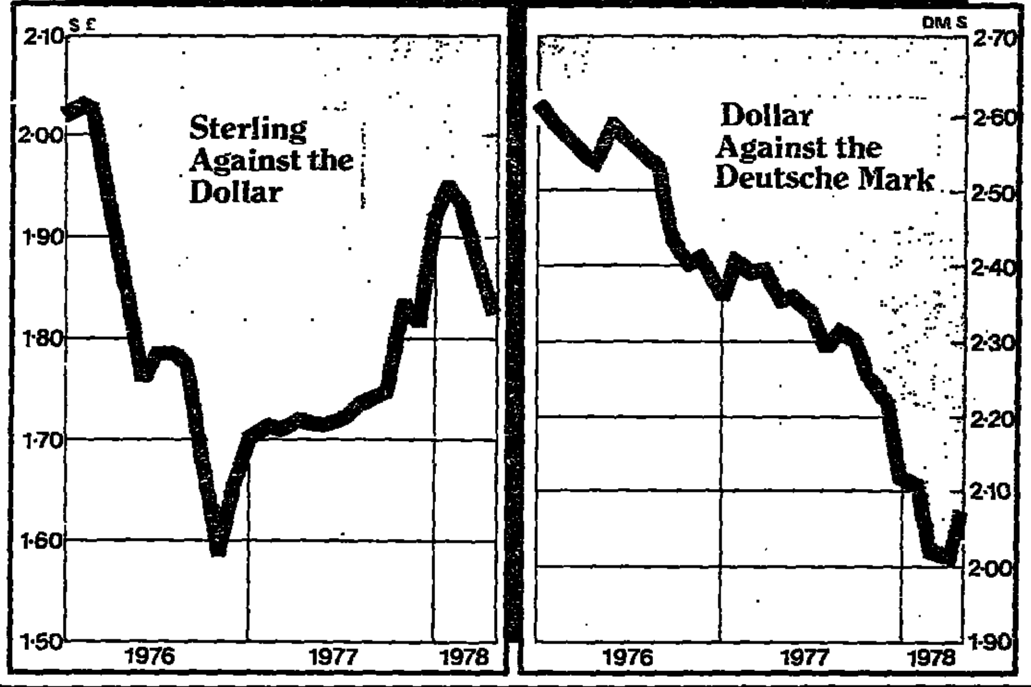
Dr. Johannes Witteveen, the retiring managing director of the Fund, had suggested that a substitution account should be established to allow central banks to exchange some of their dollar holdings for Special Drawing Rights, effectively neutralising these dollars. Germany has been critical of this idea because it would not necessarily lead to a change of U.S. policies, while the U.S. administration has been cool to a plan involving so obvious a mopping-up of surplus dollars. Instead the U.S. has proposed linking an increase in Fund quotas to an additional allocation of Special Drawing Rights. All these issues were referred for further study and for consideration at the Fund's annual meeting in Washington in September.

The main industrialised countries do, however, face an earlier deadline than this with the Bonn summit now only 10 weeks away. Although the Mexico City meeting has not brought the prospect of agreement any nearer, there is a feeling that Germany may be prepared to move a little way (possibly as a token) on economic expansion as part of a wider package, even though no public indication has been given.

There may not be sufficient time to resolve differences on Chancellor Schmidt's proposals. But there could be a surprising degree of unanimity about the dollar. This may merely be because the U.S. currency has already shown clear signs of stabilising in recent weeks against the stronger European currencies. So while the politicians fret, the market may, as so often, have the final say.

Jacques de la Rosiere, the incoming managing director of the IMF who will have to deal with the problems left from Mexico City.

CURRENCY INSTABILITY



MEN AND MATTERS

Bring back that vase

Warwick District Council is looking for a seven-ton Roman vase, valued at nearly £250,000. The council is trying to have it brought back to Warwick Castle, whose treasures are being steadily sold off by Lord Brooke. The councillors have decided to postpone serving a listed building enforcement order, in the hope of arranging a meeting with the earl. He lives in Rome and refuses to discuss the controversy over the "stripping" of the castle.

Last Friday, the Arts Minister, Lord Donaldson, decided to withhold for three months an export licence for a Canaletto which Brooke has sold to an overseas buyer for £219,000. Already, one of four paintings of the castle done by Canaletto has been lost to Britain. One of a pair has been saved, with the help of a £137,000 grant to the Birmingham Art Gallery from the Victoria and Albert Museum. But Birmingham has only a fortnight left to find £107,000 to save the second of the pair.

Carlo's coup

Italian big business will never look quite the same after the £10m. coup pulled off last week by Carlo de Benedetti, a 43-year-old Piedmontese. Despite the open opposition of the Agnelli family, he has gained the biggest single stake in Olivetti, and becomes its deputy chairman. It is hardly surprising that Il Mondo magazine has nominated de Benedetti "Italy's manager of the year."

The Agnellis, Giovanni and Umberto, hold 7 per cent. of the international mechanical-electronics company. Their challenger will hold 20 per cent., after subscribing more than a third of Olivetti's impending L40bn. capital increase. This is the second close encounter: for three months in 1976, de Benedetti was managing director of Fiat, but resigned declaring: "I don't want to be a puppet of the Agnellis."

De Benedetti's fortunes are founded upon tanning. He began with a small Turin company in 1972. It grew so fast—from 100 to 1,500 workers in four years—that Fiat, its main customer, took it over; the forceful proprietor was given a 5 per cent. holding in the giant car group, with the short-lived managing directorship to boot.

It has often been asserted in Italy that the underlying reason for the 1976 break with the Agnellis was de Benedetti's dislike for the deal that gave Libya the second largest single shareholding in Fiat. He has the support of Jewish financial circles and after selling back his Fiat stake, at what was reputed to be a handsome profit, once again mounted an independent enterprise. His new tanning acquisition doubled its turnover from L26bn. to L53bn. in 1976-77.

De Benedetti's horizons widened rapidly and the Olivetti deal was the product of months of negotiating in defiance of the Agnellis. As joint managing director as well as deputy chairman, de Benedetti becomes the effective boss. Olivetti really had no choice: it is badly in need of fresh funds and in Italy's present state there were no other industrialists prepared to pump in money on such a scale.

"Haven't seen anyone dancing round the maypole so far."

Leyland uplift

Praise for British Leyland is scarce these days, but the heavy vehicle division will be able to bask this week in a prestige victory over a main rival. Although many people find the Leyland Marathon II decidedly ugly, beauty is not what counts with juggernauts. Performance, fuel consumption, payload and price matter most, and the coming issue of Truck magazine reports a test in which the Marathon does better on all of these than the Swedish-made market leader, the Volvo F10.

The test was done on a controlled 400-mile comparative run. The one area in which the Marathon scored less well, according to Truck editor Pat Kennett, was in cab comfort. Leyland are known to be preparing a new breed of heavy trucks for a fresh assault on the European market, where they are now very thinly represented. They will be giving more thought to the welfare of the man behind the wheel, promises Jack Smart, deputy managing director of Leyland Vehicles. He adds: "Overall, I think we have turned the corner."

Magic new and old

The world's finance ministers, attending the IMF interim committee meeting in Mexico City over the week-end, might have been excused for thinking they had flown to the wrong place. They were greeted in the spacious lobby of the El Presidente Chapultepec Hotel by a large sign reading: "Welcome to Walt Disney's Magic Kingdom Club." The ministers were completely dwarfed in significance on Sunday by the Mexican declaration of Children's Day. Faced with the competing attractions of a splendid parade in Chapultepec Park, or a discussion of the interest rates to be paid on SDRs, some membere were suspected of quietly swapping their IMF identification tags for Mickey Mouse buttons.

Something of this Disneyland fantasy engulfed a discussion about the projected size of the Japanese trade surplus this year: the large delegation from Tokyo went into a huddle. There was earnest consultation, plus the raising and lowering of Ministerial spectacles; after five minutes, the Japanese admitted they were unable to estimate their own trade surplus.

As a contrast to such obscurities, there was much enthusiasm among the Finance Ministers for yesterday's excursion to the classic Toltec and Mayan ruins at Chichen Itza in the South-eastern State of Yucatan. Denis Healey was well to the fore. He seemed undeterred by the fact that Chichen Itza's most notable feature is its celebrated sacrificial well. He may have been consoled by the fact that, according to legend only beautiful virgins were sacrificed to the gods by being thrown into its deep waters.

Listen carefully . . .

During a private seminar arranged last week b ystockbrokers Fielding Newson Smith a talk about the role of nuclear power stations was given by Coal Board chairman, Sir Derek Ezra. At the end, a member of the audience asked: "Are these nuclear stations coal?or oil-fired?"

Observer

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FINANCIAL TIMES SURVEY

Tuesday May 2 1978

Mechanical Handling

MECHANICAL HANDLING II

Like most capital equipment suppliers, makers of mechanical handling equipment are suffering from the sluggishness of industrial investment in the developed world. Elsewhere, among the newly rich nations, there are clearly opportunities to be seized, but world competition is intense and for the U.K. manufacturers the answer may lie increasingly in closer co-operation in joint ventures.

Keys to success in world markets

IF THERE is a common thread linking all the various sectors of the mechanical handling industry, ranging from pedestrian-operated lift trucks to heavy dockside cranes, from small overhead conveyors to bulk handling systems for iron ore, it is the need for equipment manufacturers and contractors to make themselves less dependent on the home market and more international in their outlook. To do this, they have to upgrade the technical performance of their products and systems and improve their marketing organisation, a task which may require co-operation with other companies and perhaps stronger financial backing.

This has to be done at a time when international competition, reflecting the generally depressed state of the world economy, is fiercer than ever before. Japanese, German and other competitors, most of them already well-established exporters, are battling for a bigger share of overseas markets, including the U.K. itself.

Few engineering companies, however successful in exporting, can insulate themselves from the ups and downs of domestic business. They need the home market both as a baseload of orders and as a showcase for foreign customers, where they can demonstrate their products and processes in operation. This applies especially to materials handling systems, where the ability to engineer and instal a complete contract is at least as important as the manufacture of hardware.

In bulk handling and in the heavy crane industry the nationalised industries have an important role to play, since they are the dominant purchasers in the U.K. market; their ordering policies can influence, directly and indirectly, the attitudes of foreign buyers.

In certain fields, such as the preparation and handling of coal and some aspects of postal mechanisation, the techniques developed by British nationalised industries have a good reputation throughout the world and the manufacturers can take advantage of this. Several of the nationalised industries provide consultancy services to overseas authorities and this, too, can lead to orders for U.K. companies. But there is undoubtedly scope for greater co-operation between nationalised industries and their suppliers to promote exports of British hardware and knowhow; this is one of the issues which the Sector Working Parties, set up as part of the Government's industrial strategy, are tackling.

In parts of mechanical handling the emphasis in overseas business is on engineering knowhow and on contract management skills rather than on the supply of hardware. The starting point is often the ability of a major engineering group like GEC or Davy International to win a large contract for a power station or a steelworks; this then leads to a separate contract, often of considerable size, for the materials handling system.

Insist

In both the main project and in the materials handling part of it the client may insist on the maximum amount of local manufacture; the supply of hardware from the U.K. may be confined to special components and machines of greater complexity than available in the overseas country concerned.

For the same reasons the crane makers rely to a considerable extent on licence arrangements whereby most of the crane is made locally and only a few key components supplied from the U.K. While there is certainly scope for the export of specialised custom-built cranes, the premium is on sophistication and high added value.

In view of the importance of large contracts and package deals, doubts have been expressed about whether the British mechanical handling industry is well enough organised, compared to its overseas rivals, to enlarge its share of export business. There is a view that, in contrast to what is thought to be the practice in "Japan Inc.," British companies spend too much time cutting each other's throats and not enough fending off the foreign competition. It is also said that some small manufacturers of handling equipment, lacking the resources to attack world markets on their own, need to be brought together into consortia which can undertake large contracts.

Some such consortia do exist and have achieved success. There is possibly a danger that the creation of too many competing consortia could lead to a diffusion of the selling effort. More promising in certain sectors is the creation of international groups to handle very large materials handling installations; these can be helpful both in spreading the risk and in mobilising skills which are not available in the U.K.

For the U.K. cannot hope to be fully self-sufficient in every branch of mechanical handling. In some products the domestic demand has not been big enough to permit the establishment of U.K. manufacturers on a viable basis; this applies, for instance, to tower cranes and to escalators, most of which are imported from the Continent. Those who advocate import-substitution campaigns have to recognise that in this field, as in most branches of mechanical engineering, there is a high degree of interdependence between the industrial countries.

As far as hardware is concerned, international trade is most fully developed in those products which are relatively easy to transport. Mobile cranes (normally regarded as part of the construction equipment industry rather than mechanical handling) is one example, fork-lift trucks another. The European lift truck industry is characterised by severe competition, with all major "national" companies competing strongly in each other's domestic market and quick to take advantage of any shortfall in supplies. In 1973 and 1974, for example, when the U.K. market expanded very rapidly and local manufacturers ran out of capacity, imports from Continent and from Japan quickly filled the gap, establishing a stake in the market from which they have been difficult to dislodge.

Complicated

The pattern of trade is complicated by the presence of the so-called multinational companies, which are often exporting from, and importing to, a particular country on a substantial scale. In the U.K. lift market, for example, Otis, the American company which is a subsidiary of United Technologies, is a sizeable manufacturer and has the largest share of the market. (Its closest rival is Express Lift, the GEC subsidiary.) But Otis's U.K. plant is part of an integrated European operation.

The same applies to industrial trucks. For instance, Eaton, the U.S.-owned company, manufactures electric trucks in the U.K. and internal combustion engine trucks in Germany; there is also a rationalisation of component production between the two plants. Demag of West Germany, a powerful contender in cranes, hoists and other branches of mechanical handling, has a manufacturing plant at Banbury in the U.K.

The presence of the multinationals is a source of strength for the mechanical handling industry; there is no case for the nationalised industries to discriminate against them in their purchasing policies, as is occasionally suggested by British-owned competitors. It is arguable that in certain fields the leading British-owned companies should themselves become more multinational by building or acquiring plants in other countries. Linde, the leading European lift truck manufacturer, has recently acquired a presence in the U.S. by acquiring control of one of the smaller local manufacturers; there have been suggestions that British truck makers should form links with Continental companies to achieve greater economies of scale.

There may be opportunities for deals of this kind, but they will not reduce the importance of maximising exports from the U.K. Other forms of collaboration are possible, involving the exchange of know-how. Certain automated storage and retrieval system have been more highly developed in other countries and some British companies have gained access to these techniques through licence deals. In developing countries partnerships with local companies are often a necessary condition for doing business.

There is, in short, a variety of co-operative arrangements which may be appropriate, but success in overseas markets depends in the end on the supplying company's ability to solve his customer's materials handling problems, whether it is through the sale of a fleet of fork lift trucks, the design of a baggage-handling system for a new airport, or the installation of a large conveyor system for an open-cast coal mine.

While there is a reasonably steady replacement demand for certain components, materials and equipment, the mechanical handling industry is dependent on the level of capital investment throughout the world. At the present time a number of developing countries, such as South Korea, the oil-rich countries of the Middle East, and the more advanced nations of Latin America, are investing strongly in infrastructure projects and in heavy industry; the suppliers of bulk handling systems, cranes and other products are devoting much of their selling efforts to these areas.

In the industrial countries spending on new plant is sluggish and there is surplus capacity in most industries. Yet in the medium and long term there remains ample scope for improving productivity through more efficient handling of materials; as labour becomes more costly in relation to capital, automated handling techniques will become more attractive.

It is possible that as these new techniques advance the boundaries between some of the different sectors of the mechanical handling industry will tend to become less rigid; manufacturers of discrete components or machines may find themselves in the role of systems designers and contractors, embracing a wide range of processes and techniques. What is certain is that the demand for the problem-solving skills of the mechanical handling specialist will continue to grow.

Geoffrey Owen

SALES OF MECHANICAL HANDLING EQUIPMENT IN THE U.K.

(£m. 1976)

Conveyors, aerial ropeways, etc.		**168.6**
Of which		
Bulk handling equipment	**129.9**	
Unit load handling equipment	**38.2**	
Other	**0.5**	
Cranes and transporters		**169.3**
Of which		
Mobile cranes	**74.9**	
Other cranes, including parts	**94.4**	
Lifts and escalators		**76.2**
Lifting and winding devices (including hoists)		**73.5**
Industrial trucks and tractors		**192.9**
TOTAL		**679.5**

Source: Business Monitor.

Evolving a strategy

ANY ATTEMPT to define an industrial strategy for mechanical handling must start by subdividing the industry into its constituent sectors. For mechanical handling is really a collection of separate industries, each with its own problems and opportunities. While there are some common elements between the sectors, it makes little sense to draw up a comprehensive programme for mechanical handling as a whole. Thus the Sector Working Party (SWP) for mechanical handling has set up subcommittees for the four main sectors—conveyors (including bulk handling and unit handling systems), lifts, cranes, and lifting and winding equipment including hoists. A separate SWP looks after industrial trucks, a compact and clearly defined sector. (The cranes sub-committee of the mechanical handling SWP does not include mobile cranes, which have been logically, put together with the construction equipment SWP.)

The objective of each SWP is to help the manufacturers in its sector to improve their performance and increase their international competitiveness. Some of them have worked out precise targets for gains in exports and for reductions in the share of the domestic market held by imports. But the emphasis of much of the SWP's work is on identifying specific obstacles to better performance and devising ways in which those obstacles can be removed.

In industrial trucks, for instance the manufacturers were badly affected four years ago by the inability of their component suppliers to keep up with demand; there has been continuing concern over long lead time for such items as hydraulic pumps and valves, electric motors and axles. The SWP has been seeking to develop a better "interface" between the truck manufacturers and their suppliers, involving the provision of more detailed forecasts of demand and more accurate estimates of likely call-off.

Information

Another area in which the SWPs have been active is in the supply of better and more comprehensive information about world markets. Last year's progress report on industrial trucks contained a considerable amount of information about production in the main industrial countries and shares of world exports held by the major manufacturers. In conveyors the SWP has commissioned an overseas marketing survey; this is jointly financed by government and the industry and will examine, among other things, customer attitudes to British products and the action which would be appropriate for British manufacturers.

Ideally, this is the kind of work which ought to have been undertaken by trade associations on their own, without prompting from the SWP. But the fragmented structure of trade associations in this country and the generally low level of funding which they enjoy from their industries have made it difficult for them to embark on the kind of co-operative self-help programmes which the SWP has been promoting. There are signs that bodies like the Mechanical Handling Engineers Association are becoming better supported and more active.

A pointer in this direction is the move by a group of mechanical handling companies to establish an office in a major developing country where large orders for materials handling equipment and systems are likely to be placed in the near future; the office is intended to provide both a listening post and a means of maintaining contact with clients and contractors. If the experiment is successful it may be extended to other markets.

Potentially one of the most useful roles of the mechanical handling SWP is in improving relationships between the nationalised industries and the materials handling companies. For many companies in this sector, especially those dealing with bulk handling contracts, the nationalised industries are overwhelmingly the most important customers in the U.K. market. They have often been criticised for neglecting the needs of potential overseas customers in their specifications and their methods of procurement, but there is evidence that a more constructive dialogue with their suppliers is now in progress.

Discussions have taken place with the Nationalised Industries Export Group and with individual corporations, such as British Steel, which are actively involved in providing consultancy services to overseas companies and governments. Some domestic manufacturers have been known to complain that the advice offered is too impartial in relation to the choice of equipment suppliers. Whether that criticism is fair or not, British technology as developed by the National Coal Board and others does have a high reputation overseas; this can be exploited more fully to promote exports by U.K. manufacturers.

The SWP is able to provide a forum where these relationship problems can be discussed objectively. A number of conferences have been held, often involving suppliers and customers, where specific issues can be discussed.

Next week, on May 10, the SWP is holding a conference on cranes in Birmingham, attended by management, union and Government representatives. The main aim is to focus on the action which can be taken in individual companies to improve performance.

This, of course, is the most difficult part of an SWP's work—to translate the objectives laid down for the industry or sector as a whole into action at the level of the individual company. In theory it ought to be possible, especially in a compact industry like industrial trucks, for the major manufacturers to work out a concrete plan for enlarging their share of world markets and to set about implementing it. But the reality is rather different. First, there are strong competitive pressures among the member companies. In lift trucks, for instance, some tension is inevitable between the American-owned companies which have a sizeable share of the U.K. market and the British-owned manufacturers. Second, the actions needed to secure an improvement in performance are too numerous and too diffuse to be encompassed in a detailed plan.

Approaches

As the latest progress report from the mechanical handling SWP puts it, "exhaustive examination of many different approaches has failed to reveal any measures of a kind which could make a once-for-all transformation in the performance of the sector." It is possible to identify specific problems, whether arising from Government policy, inadequate export financing facilities or purchasing decisions of nationalised industries, and perhaps to do something about them. But the SWP has no magic wand with which to improve efficiency in individual companies.

The mechanical handling SWP has set up a Company Action Group (CAG) to concentrate on actions which can be taken at company level. The hope is that companies will set up their own action committees to study how the recommendations of the SWP can be implemented; this has been done in one or two cases. Some management members are disappointed that the apparent commitment of union officials on the SWP is not reflected in the attitudes of local officials and shop stewards. But however good the communications on both management and union sides, there are limits to what the SWP can do. It can exhort, inform and advise; but the mainspring for improved performance has to be found within the company.

Geoffrey Owen

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Lift trucks facing slower growth

THE EUROPEAN lift truck industry appears to be reaching a stage of maturity. Even when a normal pattern of economic activity is resumed, manufacturers cannot expect a return to the annual growth rates of 10-15 per cent. which they achieved in the period between 1965 and 1974. Much of that growth was based on the substitution of lift trucks for manual handling methods. Although there is still scope for greater mechanisation in certain countries, such as Italy and Spain and to a lesser extent France, in mature markets like West Germany and the U.K. the increase in demand will be related more closely to the growth of GNP.

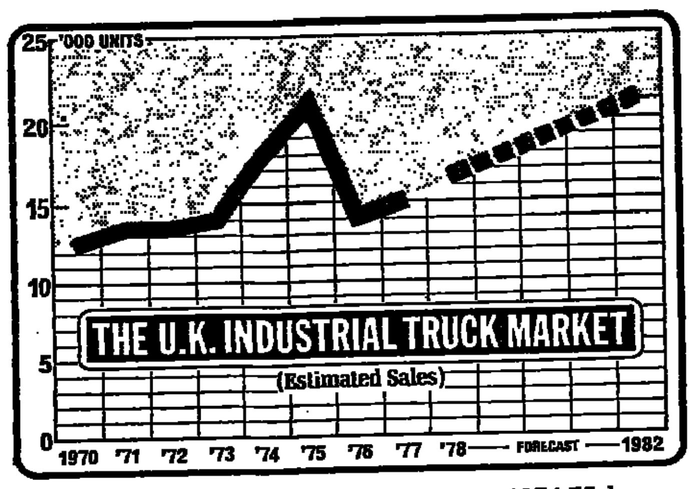
At the present time the industry is recovering slowly from a deep recession. In the U.K., for instance, the number of units sold fell from around 20,000 in 1974-75 to less than 14,000 in 1976. This year should see a continuing slight recovery but for the European market as a whole manufacturers have had to scale down drastically the growth forecasts they were making three years ago. "We had expected a total European market of 130,000 units by 1978 or 1979," one manufacturer comments; "now it will be into the '80s before that figure is reached." Last year lift truck sales in Europe were estimated at about 100,000 units.

The industry is operating at no more than 70 per cent. of capacity and there are reports of severe price-cutting. Given that the share of the market held by Japanese imports is already about 15 per cent. and probably increasing, these competitive conditions are bound to put pressure on the weaker manufacturers and perhaps lead to further rationalisation in the industry.

It is a surprising feature of the European market that no one company accounts for more than about 10 per cent. of total sales, whereas in the U.S. a market of about the same size, the structure is much more concentrated: the two leaders, Clark and Eaton, both have market shares in the region of 20 per cent., and Hyster is not far behind.

Another way of putting the same point is that there are probably six or seven manufacturers in the world with a total capacity of well over 25,000 trucks a year and none of them is European; the big producers include the leading U.S.-owned companies, Toyota and Komatsu in Japan, and Balkancar in Bulgaria. The largest European rival is Linde in Germany, especially now that its European production is supplemented by its stake in the U.S.; last year it acquired 58 per cent. control of Baker Material Handling, the Otis truck subsidiary.

There are obvious economies of scale in this industry; one observer reckons that the big Japanese producers have a cost advantage of between 10 and 20 per cent. over a European company manufacturing between 5,000 and 10,000 trucks a year. But this does not necessarily mean that the European industry will soon be reduced to a small number of big-volume producers.



The U.K. market fell sharply after the 1974-75 boom, and some manufacturers believe it will take another four or five years before sales return to the peak level.

Assembly

For one thing, it is to a large extent an assembly industry. It is not too difficult for a small engineering company to buy in the main components, price the finished product keenly and sell in a restricted market. According to some estimates there are more than 100 lift truck manufacturers in Europe, with Italy having the largest number of very small producers.

For another, Europe is still a collection of national markets, with different regulations and different customer preferences. The big national companies such as Fiat in Italy, Linde and Jungheinrich in Germany, Fenwick in France, Lansing and Coventry Climax in the U.K.—all have a strong position in their national markets. It is extremely difficult either for the Japanese or the American multinationals to dislodge them. The American-owned companies have concentrated their European truck assembly on one or at most two plants—Caterpillar at Leicester, Clark at Mulheim in Germany, Eaton at Wednesfield and Velbert in Germany, Hyster in Scotland and Holland, Allis-Chalmers in France—and they are strong contenders in most markets. But there is no sign that they are about to dominate the industry.

Market shares in this business do not change dramatically from one year to the next. There is little scope for technical breakthroughs. While the quality of the product is a major selling point, the service back-up is perhaps even more important. What is tending to happen is that as the major manufacturers seek to strengthen their market position, they are extending their range into sectors hitherto served by specialists. In the warehousing market, for instance, Eaton recently introduced its narrow aisle reach trucks, a sector dominated by Lansing and Jungheinrich.

Yet there is always likely to be room for smaller companies to concentrate on specialised machines where the volume is too small to attract the big manufacturers. As in the construction equipment industry, manufacturers have to choose between competing across the board, with a wide range of products manufactured in relatively high volume, and specialising in a narrow segment. Yet in practice the choice of strategy is rarely as clear-cut as that. Although there will certainly be some casualties and some mergers (like the Lansing-Henley and Coventry Climax-Conveyancer deals in the U.K.), the structure of the European industry will remain more fragmented than in the U.S. for a long time to come.

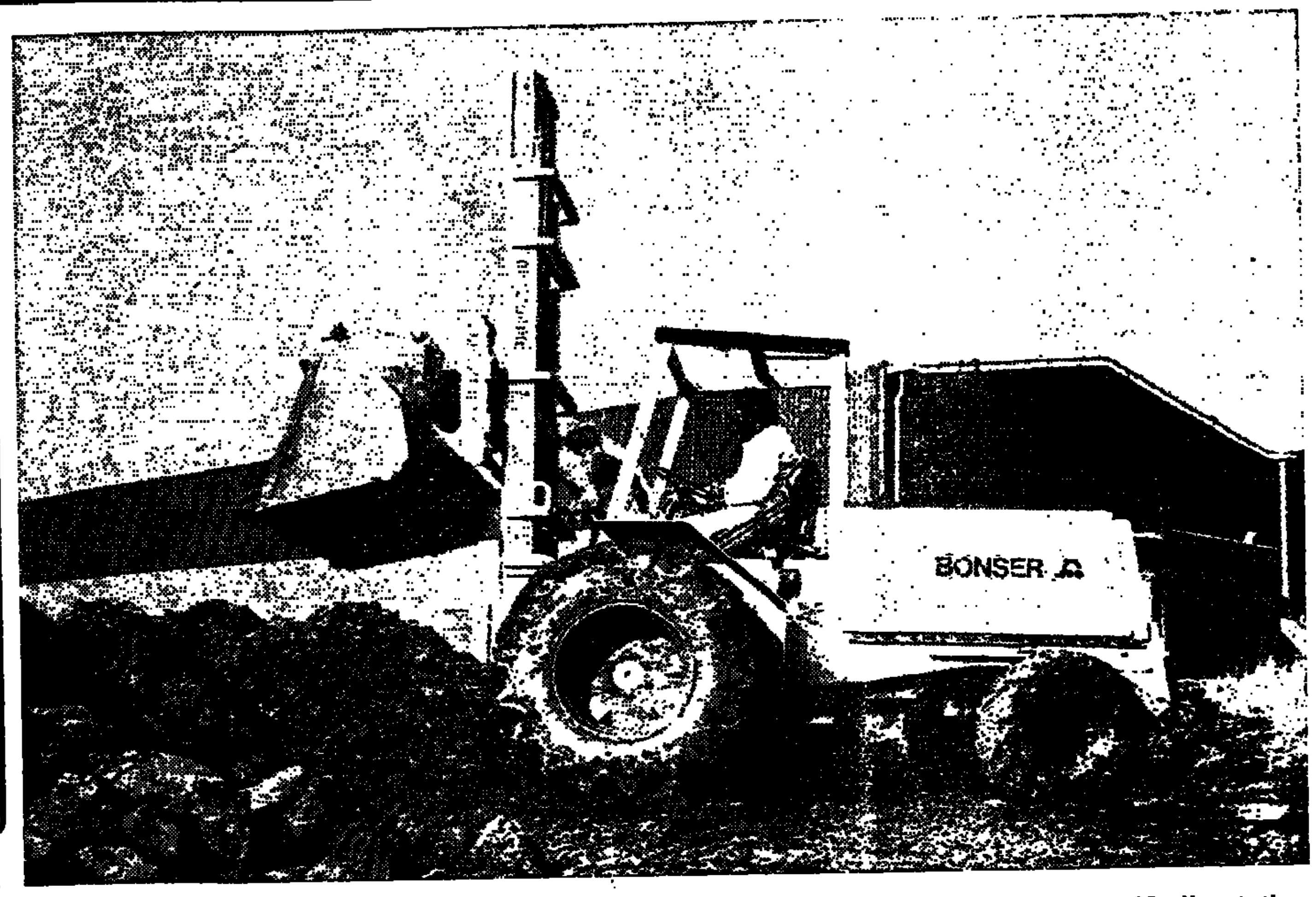
Emphasis

The emphasis will be on improving manufacturing efficiency, strengthening sales and service networks, and looking for new markets. There is scope for increasing exports of trucks to countries outside Europe. For example, the oil-rich nations of the Middle East, investing heavily in infrastructure projects and seeking to modernise their warehousing and distribution networks, have been important customers for lift trucks in the last few years. But these are markets where the Japanese, especially Toyota, have been very active. Competition for export business in the developing countries is fierce.

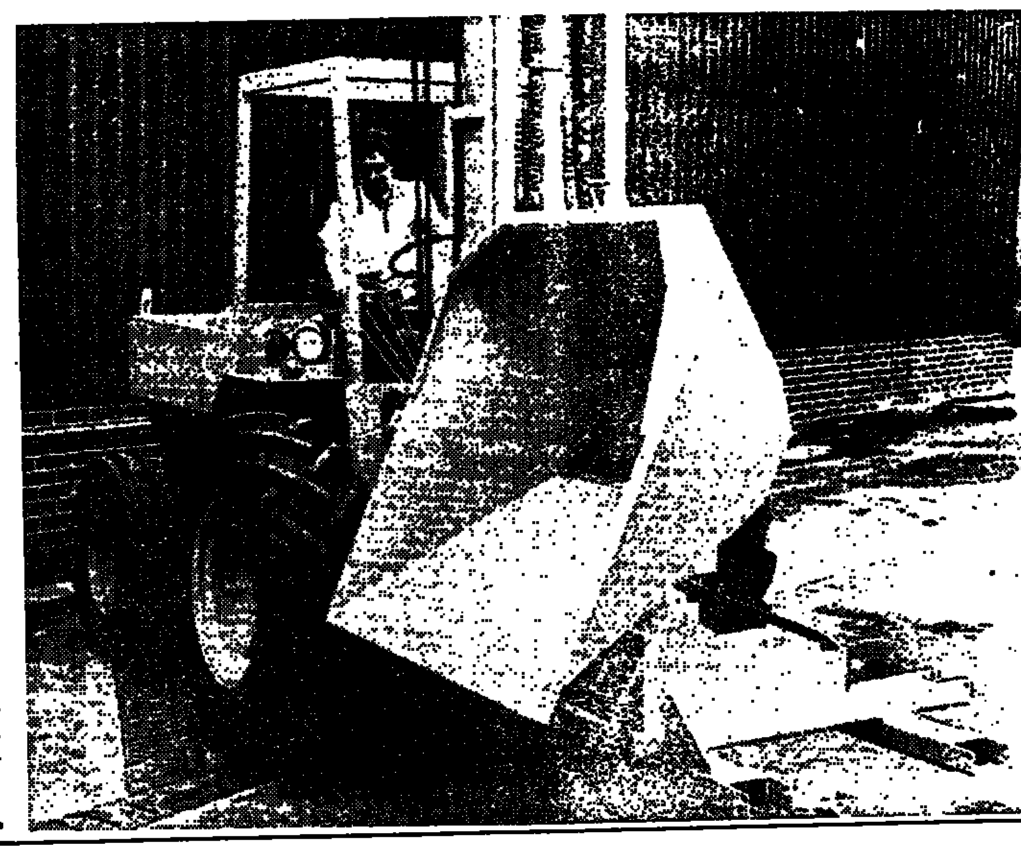
Looking further ahead, manufacturers are aware of the possibility that new handling techniques, including automated storage and retrieval systems, could eventually eat into markets now served by lift trucks. Some manufacturers, including Clark and Eaton, have developed or acquired their own expertise in these systems; others are thinking of doing so. The majority view is that any inroads will be gradual and affect only a small part of the lift truck market, but there may well be a need for truck manufacturers to develop their role as designers of materials handling systems.

For many materials handling applications the lift truck will remain the most efficient and versatile tool available. Customers will learn to use their trucks more intensively (another reason for the slowing-down in the growth of demand), but the prospective market is a sizeable one. Even a mature business offers plenty of scope for profitable growth for those companies skilful enough to take advantage of the opportunities.

G.O.



Above: Bonser Engineering's rough terrain lift truck, aimed specifically at the construction, plant hire and agricultural industries. Below: Hercules Hydraulics has designed this three-way tipping skip for attachment to its lift trucks.



Crane makers need to broaden their scope

LIKE MECHANICAL handling as a whole, the crane industry divides itself into several distinct categories which can almost be regarded as separate industries: it is unusual for a company to compete across the whole field. Most clearly separate is the manufacture of mobile cranes, which is generally regarded as part of the construction equipment industry rather than of mechanical handling. This is a field where the U.K. is exceptionally strong with companies like Coles (part of Acrow) and Jones Cranes (part of the 600 Group) exporting a large proportion of their output and well able to hold their own against world competition. The world's largest mobile crane producer, Grove (a subsidiary of Walter Kidde in the U.S.), has its own manufacturing subsidary and the leading Japanese companies are also becoming more active in the European market.

The manufacture of industrial cranes ranges from light electric overhead travelling cranes used in most factories and warehouses to the large special-purpose cranes used for dockside work, in steelworks and in other heavy-duty applications. Specialised manufacturing skills and close contacts with customers enable Stothert and Pitt, for example, to maintain a strong position in the world market for dockside cranes.

For several years this company's work load has been dominated by the £15m. order which it won in 1975 for the supply of 66 dockside cranes to Saudi Arabia—easily the largest export order in the company's history. In the financial year ended July last, 80 per cent. of Stothert and Pitt's sales of dockside cranes and deck machinery were made overseas; apart from Saudi Arabia deliveries were made to Poland, Kenya and Singapore.

Like the bulk handling contractors, the heavy crane makers are highly dependent in the domestic market on the nationalised industries; some 80 per cent. of orders come from this source. The slow-down in the British Steel Corporation's investment programmes has had a marked effect: since similar cutbacks have been taking place in the world steel industry it has not been easy to fill the gap with overseas business.

One of the leading suppliers of steelworks cranes, Adamson Butterley (subsidiary of Norcros) is working at present on a number of outstanding contracts for British Steel and the independent steelmakers which should keep the factory busy at least until the end of next year, but it is taking steps to diversify its product range and develop new export business.

In the same field Clarke Chapman (now part of Northern Engineering Industries) has been coping with the recession in steel and in shipbuilding, two of its major outlets, by manufacturing other products, taking on sub-contract work and fighting hard for whatever overseas business is available. Clarke Chapman secured an order for two floating cranes as part of the recent controversial Polish shipbuilding contract and it has a variety of other export orders on the books.

Collaboration

Again in common with the bulk handling contractors, the heavy crane makers need to work closely with the process plant contractors, who will frequently place, or advise the client on where to place, orders for cranes as part of a new steelworks or chemical plant. A recent example was the ordering of two cranes for an ethylene plant in Texas from Wharton: the order was placed through Stone and Webster, the chemical engineering contractor. Wharton, a specialist in heavy cranes, is a subsidiary of Matterson (itself part of the Williams Hudson group) which is a leading producer of industrial cranes.

It is the connection with process plant contracting which provides part of the logic behind Davy International's acquisition of Herbert Morris. Morris has been primarily a manufacturer of electrical overhead travelling cranes for industrial applications, but its technical and marketing arrangement with MAN of Germany has served to extend its range into the heavier end of the business. Under this arrangement Morris may manufacture MAN cranes under licence in the U.K. and it may compete jointly with the German company for certain overseas projects where both light and heavy cranes are required. The association with Davy, one of the world's leading process plant contractors seems certain to lead to some spin-off for Morris in hardware orders: at the very least it will increase its credibility when bidding for major contracts around the world.

Morris is the U.K. market leader in electric overhead travelling cranes and about 40 per cent. of all its orders are exported. In recent years it has developed the "crane kit" concept in medium cranes, whereby it makes collaboration deals with local steel fabricators to manufacture cranes on the basis of Morris technology and to import the specialist machinery and components from the U.K. In this way shipping costs are kept down and exports of high value-added parts are increased. Agreements of this kind with more than a dozen countries have now been negotiated.

A recurring theme in mechanical handling is the need for companies to develop their expertise as contractors, taking responsibility for complete installations. This is an area where Morris is increasing its marketing effort. Last November a consortium led by Morris won a $25m. contract to supply equipment to a major Korean shipyard; the package included 50 overhead travelling cranes.

A major competitor to Herbert Morris, both in the U.K. and in overseas markets, is Demag of West Germany; this company imports some of its equipment from associated factories on the Continent, but it also manufactures industrial cranes in Banbury. Demag has a wide range of interests in materials handling not only selling components and machines but also engineering materials handling systems.

It is active in the warehousing field, supplying stacker cranes and order-picking machines and providing consultancy services for complete systems; one major installation in the U.K. is at the Volkswagen parts depot in Milton Keynes. This is another field where Demag will be competing with Herbert Morris, which is a member of a newly-formed consortium to sell automated warehousing systems.

Other contenders in industrial cranes include Matterson, J. H. Carruthers (a Burmah subsidiary whose Monobox cranes have had considerable success in export markets), John Smith of Keighley (owned by T. W. Ward), Clarke Chapman and a number of smaller manufacturers. It is always possible for small engineering and steel fabrication companies to compete in the crane business, buying in most of the key components—although their share of the total market appears to be declining.

One of these components is the hoist block, which can be produced in substantial volume and where there is a considerable international trade; both the export ratio and import penetration is higher in hoists than in most other branches of mechanical handling. Major suppliers of hoists on the U.K. market include Demag, Herbert Morris, Matterson and Clayton Crane and Hoist.

The specialist crane manufacturer and the specialist component supplier should always find a place in the market as long as they keep on top of the technology and maintain strong international links. But it seems that the ability to offer a comprehensive range of services, to engineer and supply materials handling systems, will become more important for the crane manufacturers, as is already happening in other branches of mechanical handling. Several of the leading companies, especially those that form parts of large engineering groups, are moving in this direction.

G.O.

At a container berth at Southampton (British Transport Docks Board) a Paceco-Vickers crane works over the side of a ship. On the right is a Clark straddle carrier.

Conveyors rely on co-operation

THE CONVEYOR business falls into two distinct categories—the bulk handling of materials like coal and iron ore and the unit handling of components and products in factories, warehouses, airports and post offices. But one key ingredient is common to both. This is the ability to design, engineer and instal a complete handling system. Few customers—the National Coal Board is one exception—design their own systems; most rely on the materials handling contractor. He may supply equipment from his own factories—the proportion of in-house manufacture varies widely from company to company and from project to project—but his primary skill lies in putting together a package that moves materials or components efficiently and economically.

Bulk handling contracts normally form part of large-scale projects—the construction of a power station or an integrated steelworks, or the opening-up of a new mine. Sometimes the handling contract will be placed separately by the client or by the engineering contractor responsible for the project as a whole. Sometimes it will be incorporated in the overall contract. In either case the conveyor system supplier has to work closely with the main contractor. The bulk handling business can be regarded almost as part of the process plant industry: the success of British conveyor systems in world markets depends in large part on the success of U.K.-based process plant contractors.

Contracts

For example, Babcock-Moxley, one of several materials-handling companies in the Babcock and Wilcox group, is supplying the coal-handling system for the recent power-station order won by GEC in Hong Kong. Similarly, Davy International's big steelworks contract in Brazil is expected to bring useful business to British materials-handling companies. If the consortium led by Davy wins the very large contract for the Zulia steelworks in Venezuela that too could generate valuable orders for British-designed materials-handling systems.

Some of the biggest companies in the bulk-handling field are parts of large engineering groups—GEC Mechanical Handling, Babcock and Wilcox, the various subsidiaries of Davy International (notably Head Wrightson), and Simon Carves, subsidiary of Simon Engineering. They have the financial resources to tender on their own for large handling contracts and frequently do so.

But it is also possible for smaller companies, which have the advantage of flexibility, to act as main contractor in certain projects. One example is Don Valley Engineering, a private company based in Doncaster, which recently completed a materials-handling installation worth nearly £2m. for a new phosphates mine in Jordan; the contract, completed in ten months, was the largest export order won by the company.

U.K. demand for bulk handling systems comes mainly from the nationalised industries, especially the National Coal Board and British Steel. The cutbacks in steel investment have hit the industry hard: although some large projects are proceeding, heavy costs have been incurred in tendering for orders which have now been deferred indefinitely.

This has obliged the contractors to redouble their efforts to secure overseas orders. Despite the world recession a number of developing countries are continuing to invest in new mining ventures and in heavy industry, but competition for these contracts—particularly from German companies like Krupp and MAN and from the big Japanese industrial groups—is intense.

Fortunately the technical reputation of British authorities like the Coal Board is high and the materials handling contractors benefit from this relationship. But it is generally agreed that the nationalised industries could and should do more to assist their suppliers to gain a bigger share of export markets; this is one of the issues under study by the mechanical handling Sector Working Party.

Much thought is being given to ways of breaking into those markets which are at present dominated by Japanese, Continental or American suppliers. With the encouragement of the Sector Working Party, a group of companies in mechanical handling is planning to set up an office in a country which is likely to be in the market for handling systems on a large scale, and in which U.K. com-

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Better outlook for financing

THE IMPROVED climate for U.K. business in the past six months, with the decline in inflation rates easing the liquidity problems of many companies, means that more cash is becoming available for capital outlays. This applies to purchases of mechanical handling equipment as much as any other.

There are basically three finance options open to companies. There are the medium-term such as the bank loans, hire-purchase agreements, contract hire or leasing, while more long-term capital can be raised by equity or loan stock issues. The company can also finance the purchase from internal resources.

Borrowings from the banks on a medium-term basis is clearly attractive at the moment. Interest rates are still low by recent standards and a prime borrower can now get money at a rate of one or two points above base rates, which comes out at 8.5 or 9.5 per cent. Banks are also, according to their recent evidence to the Wilson Committee investigating the City, brimming over with money which they would like to lend to industrial customers.

However, it is as well to remember that interest rates can increase sharply, and now that they are an instrument of monetary control, will tend to be raised far earlier in the upturn of the business cycle than hitherto. For this reason there should be caution in the amount of commitment to the banks for extended credit.

Many of the smaller companies may not be in a position to take advantage of the current cheapness of bank borrowing anyway. Furthermore, it can sometimes be an advantage to take out a fixed rate of medium-term debt, since the company is then in a position to make accurate budgeting, which is essential to keep control of cash flow projections. A hire purchase agreement or some form of leasing or hiring arrangement would be at a fixed rate over a medium-term and these facilities can be obtained from the larger finance houses or in some cases through the manufacturers themselves.

Increase

The leasing industry has been growing steadily and strongly for the whole of the decade. In 1977 it reported its best year ever. Figures for member companies of the Equipment Leasing Association (ELA) which account for about 90 per cent. of all finance leasing business transacted in the country show that £675m. of new assets were bought for leasing to industry last year. This was an increase of more than 50 per cent. on the 1976 figure of £421m. and compares with a 1972 figure of £130m.

This rate of growth was shared by the category which covered the mechanical handling industry. Plant and machinery acquired for lease last year totalled £198m. and the total on lease at the end of last year was £753m. This total makes plant and machinery the most important sector for the ELA. The next most important category in terms of total assets on lease is computer and office equipment, with £467m., followed by ships with £405m. and commercial vehicles with £363m.

Announcing these figures in March, Mr. Stuart Errington, the ELA chairman, said: "The leasing industry is poised to play an increasing role in the provision of medium-term finance to assist the U.K.'s economic recovery."

He went on: "Even allowing for inflation these figures show a remarkable increase in the amount of investment by industry through leasing. The growth in leasing over the past several years is the result mainly of the growing recognition by industry of the special attributes of leasing. Both large and small companies have benefited and the leasing industry stands ready to assist further the upturn in industrial investment widely forecast for 1978. Provisional figures show that industrial investment grew by some 24 per cent. in 1977, and so the share taken by leasing (the value of which has grown by 50 per cent.) of all investment has by any standards very significantly increased."

Both leasing and hire purchase give the company concerned assurance of finance over an agreed period of time and at a fixed price. The basic difference lies in the tax treatment. For this reason it is the particular tax position of the company which governs just which of these financing methods is the most attractive. Guidance on this is always available from the finance houses themselves, some of which have produced booklets on the subject.

Under a hire purchase agreement the user of the goods becomes the legal owner of the goods when the final payment has been made. But for taxation purposes the company is treated as if it is the outright owner from the time of taking on the equipment. This means that the company is able to take advantage of the whole of the 100 per cent. first year allowance just as it would if the purchase had been made for cash. By the same token if the company can qualify for any regional development grants these again would immediately become due. Of course, the company needs to be earning sufficient profits to offset the allowance against.

Suitable

Leasing arrangements are more suitable to the company that is not in a position to take advantage of the 100 per cent. allowance. Under a leasing arrangement the lessor remains the owner and at no time does the ownership pass to the user. As such, the finance house, or any other form of lessor, then becomes entitled to the 100 per cent. allowance and any regional development grants. If the finance house is in a position to take advantage of these allowances then some of the benefit could be passed on to the user by way of a more competitive leasing charge.

Contract hire is a form of leasing but it also contains servicing agreements and is mainly used when vehicles are involved. Fork lift trucks are one of the most common forms of materials handling equipment and here rental or some other form of leasing arrangement is extremely popular. It is estimated that about 20 per cent. of the 125,000 fork lift trucks in the U.K. are operated on a rental basis and perhaps as many as a further 20 per cent. obtained through hire purchase and leasing agreements. Lansing Bagnall, the largest fork lift company in the U.K., has both a rental and leasing subsidiary and the number of new truck acquisitions that are made by means other than direct purchase is rising.

Rates are increasingly tied to inflation. Since the new replacement cost of a fork lift truck has risen about two and a half times over the past five years, this has become a major problem for hirers. Fixed price contracts are giving way to agreements which take rising prices into account. Different hirers apply different formulas.

The Fork Truck Hire Association, which represents 50 of the 70 or so companies operating in the field, has a standard contract which allows for increases in rates at regular six-monthly or yearly intervals according to movements in the retail price index. Variants of this contract use the index of materials and fuels purchased by the mechanical engineering industries or the industry wages index. The increase in rate may be applied to parts of the contract, such as maintenance or other service costs, or to the whole.

David Freud

This Sovex Marshall belt conveyor is part of a £1m. expansion programme by the Worcester Royal Porcelain Company and is used to carry lithographed porcelain pieces to an inspection area.

Conveyors

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panies have at present only a small share of the business. More than a dozen manufacturers are involved and the idea is to establish a kind of "shop window," staffed by an engineer and a small team, which will also serve as a listening post and a point of contact with clients and contractors. If this pilot operation is successful, it may be extended to other countries.

The other side of the conveyor business, unit handling, is also dependent on the level of capital spending, but the size of individual projects is smaller than in bulk handling and this is one reason why the industry is more fragmented. It is relatively easy for small companies to establish themselves in the unit handling business, buying in most or all of the components needed for the installation and then assembling them on site.

Whether this is a source of strength or weakness is a matter of some debate. Certainly the availability of an efficient component supplying industry is an important asset, but it may be that the structure of the contracting industry is not ideally suited for enlarging the U.K.'s share of export business.

In certain sectors there are big companies in the field. For example, GEC Mechanical Handling is one of the major contenders in baggage handling for airports and in postal mechanisation, especially parcels, where it has won a number of overseas contracts. Jenkins of Retford, a Babcock and Wilcox subsidiary, is active in automated warehouse systems (a market which has been slow to develop in the U.K.) and in unit handling; it is a major supplier of overhead monorail conveyors for the motor industry.

Active

Another big company in the unit handling field is J. H. Fenner, whose Fenamec subsidiary is active in a wide range of industrial and warehousing applications. It is a competitor to GEC in airport baggage handling and recently installed a large system at Gatwick. In postal mechanisation Fenamec is a member of a consortium which also comprises Midland Dynamo, George Robson (Conveyors) and Davies Pritchard and Richmond. This consortium recently won a contract from the Hong Kong Post Office and is competing for a larger order in Kowloon, in association with Jardine Engineering.

It is possible that the formation of special-purpose consortia of this kind can be extended to other fields, thus enabling smaller companies to participate more directly in overseas business. But the materials handling contractor will often wish to retain the freedom to choose the sub-contractors he considers suitable for a particular installation. Equally the suppliers of standard equipment will not wish to compete directly against the contractors who are their most important customers. It would make no sense, for example, for Dunlop, an important supplier of conveyor belting for bulk handling systems, to set up as a contractor in the same field; where Dunlop does act as a contractor, it is on special applications, such as the supply of its own design of moving walkways in airports, where it is not competing against its own customers.

Thus it is not certain that a "restructuring" of the conveyor business, creating larger manufacturing groups or larger consortia, will benefit the industry. There is a complex pattern in materials handling which does not lend itself to simple rationalisation. It is clear that the role of the systems designer and contractor will become even more important in coming years, but the backing of an efficient and flexible network of sub-contractors and component suppliers is no less vital.

G.O.

Efficiency in the factory

THE FACTORY floor is the heart of production and within the overall manufacturing process, handling of materials represents a potential, and often overlooked, source of cost reduction. In the Department of Industry report called "Materials-Handling Costs—a new look at manufacture" published 18 months ago the main reason for wasted resources being spent on materials handling was isolated as poor layout planning, itself usually a result of ad hoc expansion in the absence of a strategic development plan. Since materials handling is essential to the central productive process, but not itself productive, the ideal factory layout keeps materials handling costs to a minimum while ensuring efficient flow to, through and from the shopfloor.

To achieve the often substantial cost benefits available from efficient materials handling the logical approach is to eliminate all unnecessary handling and reduce to a minimum all remaining elements of movement and storage. Other basic guidelines are to keep materials moving—even to the extent, wherever possible, of processing while in motion and to avoid letting materials touch the floor.

The simple rule of thumb is *to minimise* the distance over which materials have to be handled. Poor planning leads to long and complicated movements and poor space utilisation particularly in static and work-in-process storage.

The goal for the materials handling systems planner is, after analysing the product or commodity mix and the priorities for the relationship between the various activities of the manufacturing cycle, to obtain the greatest volume, frequency and earning capacity, using the most efficient handling over the shortest distance.

For the company which has detected inefficiency and possible savings in materials handling the ideal approach may well be to call in the experts. These could be companies producing a range of mechanical handling equipment, institutions like the National Materials Handling Centre or specialist management companies like the Modern Materials Management Group of companies.

For 15 years Modern Materials Management has been providing a complete consultancy service to companies seeking to improve existing operations and plan expansion. In line with the DOI report MMM does not believe more efficient cost-saving materials handling systems must always involve large capital expenditure.

The company says: "For many manufacturing plants in this country much can be achieved by maximising existing resources and applying low cost solutions to materials handling problems. "Often the problem is not one of investment, but of management will and logistics.

W. Germany's DEMAG group has developed this Manulift gear, with a wide range of quick-release attachments, for single-handed operation with light loads.

It is still true that few companies are aware of the costs involved in storage within their factories.

Although piece-meal remedies for materials handling problems are almost universally condemned, a systematic analysis of the production process may highlight areas in which improvements can be made.

There is also an increasing awareness that the benefits of efficient materials handling are not limited to those of direct cost saving. Efficient handling provides better control, safety and reliability within the productive process and this may mean investment in more mechanical handling.

Choice

The basic units of mechanical handling are industrial trucks, conveyors and lifting machines. On and around the small factory shop floor the most frequently found units are probably fork lift trucks, manual or electric hoists, simple store and in-process storage and sometimes a conveyor, often of the belt type. There is, however, a wide and still increasing choice of materials handling equipment.

Where flexibility of operation is required over a wide area industrial trucks are often the first choice because of their ability to move products horizontally and vertically, travel between production activities and move outdoors between buildings where necessary.

Where space utilisation is at a premium narrow aisle and side-stacking trucks are often employed. Where weight or lifting heights are too great, "walkies," powered pedestrian trucks, are a popular alternative to the conventional fork lift.

Crown Lift Trucks, which claims to be the world's largest manufacturer of pedestrian stackers, says there is a substantial market for "walkies" lifting up to one ton to a height of about 11 feet. The growth areas in the industry are probably in narrow aisle equipment capable of operating in less than 5 feet, and turret trucks. Lancer Boss, which manufactures a range of specialist trucks, says the swing is towards bigger trucks with a comprehensive range of lift heights allowing the maximum use of space via dense and high stacking with attachments to bring speed to special tasks. Naturally the type of storage and choice of pallet, height, weight and peculiar operating conditions affect truck choice.

For companies simply wishing to improve the efficiency of existing trucks with the least possible capital expenditure the growing renovation and rebuilding industry may prove first choice. The MEL group of companies operating from Bicester claims rebuilding can cut maintenance costs and save up to 60 per cent. on corresponding new equipment.

In some circumstances hoists and cranes may provide an alternative to lift trucks for heavy loads. Where heavy units have to be moved within a prescribed area, electric overhead travelling cranes running on rails near the roof have the advantage of occupying no floor space, and the ability to lift over obstacles. While fork lift trucks can operate to racking heights of 33 feet, mast cranes can reach 100 feet.

Where the problem is providing a fast controlled fixed path movement for large capacities with little floor space usage, conveyors provide a possible solution. The field of conveyors is very wide corresponding to the extensive range of materials a conveyor can carry and the conditions in which it must function.

Sovex Marshall, one of the leading British conveyor manufacturers, produces a whole range of conveyors from the common belt conveyor, gravity and powered roller conveyers through to overhead chain conveyors and complex sorting systems. Overhead conveyors have the added advantage of requiring no floor space and, if need be, providing "live storage" where, for example, a painted product can be left to dry.

Potential

The company stresses the labour-saving potential of mechanical handling. This enables the productive workforce to be expanded by transferring materials handling staff to production. Sovex Marshall also argues strongly against impulse buying. It suggests that managements should consult companies offering a range of mechanical handling and then ask for a selection of quotations.

It is interesting to note the DOI suggests that flow-line factory layouts tend to be more efficient than job or batch systems and points out that standardised containers, pallets and handling equipment all bring cost savings.

Storage may be required for raw material, work-in-progress and prior to distribution. Efficient storage avoids "piles on floors," delays in material supplies, and can provide bulk purchase cost benefits.

Where access to separate loads is not important and the unit load is rigid and strong, free stacking or block stacking is normally used. Shelving and bins are used for small items issued in quantity while pallet racking provides good access to individual loads. With "drive in" racking a truck selects the required unit.

Increased storage density can be obtained by using live or mobile racking like Bar Productions' Mini Storax system where racks are individually powered by electric motor and pedestrian aisles are opened up at the touch of a button.

Whatever the size and product of a factory the ultimate aim of the materials handling systems designer is to produce a movement and storage plan covering the whole manufacturing cycle. This plan must embody the most efficient and suitable mechanical handling to fit the customer's purse and allow for future production expansion.

Paul Taylor,

The needs of the builder

THE CONSTRUCTION site can be the most demanding workshop of all, for operatives and machines.

As a recent and somewhat controversial report from the Health and Safety Executive pointed out, the construction site is a high-risk area for accidents because of its ever-changing and challenging nature.

The Executive's description of the conditions under which contractors have to work was a forceful one and also demonstrated clearly the demands which are likely to be made on any machinery involved in the building process.

"The construction site is very different to the factory. In a few months it can be a hole in the ground, a concrete slab, a steel frame. In a short time, the labour force may change completely and certain jobs are at the mercy of the weather. Darkness and week-end working make supervision difficult."

Quite apart from any qualities demanded of the men who work under such conditions, their machines must display the same flexibility and ruggedness and yet they must also be as reliable and as unsophisticated as possible.

All the factors which make the construction industry so inherently difficult and potentially dangerous have to be borne in mind continually by the manufacturers of site handling equipment, whose success depends on meeting the needs of their building and civil engineering customers.

It is fair to suggest that, for many contractors, the question of correct materials handling procedures—leading to more efficient use of labour and less materials waste—is one which has too often been ignored. Countless reports have highlighted the room left for improvement in this area and have demonstrated the potential savings available to the contractor who spends a little time and money organising the movement of his materials on site during the construction process.

There is evidence that the present recession, possibly the worst in construction since the last war, has at least encouraged contractors to tighten up their operations and, in doing so, to consider improvements to their handling systems. Cost savings have become all-important against a background of slim or even non-existent margins and site efficiency has therefore come in for some close scrutiny.

Not that actual overall sales of construction site handling equipment have performed significantly better than in any other sector of the engineering industry, although they are now substantially up on the very poor levels achieved two years ago. There is hope among the

CONTINUED ON NEXT PAGE

MECHANICAL HANDLING VII

New warehouse techniques fight for acceptance

THE EFFICIENT storage of goods in warehouses was greatly stimulated by the war, when it was forcibly brought home to those in charge of moving stores that an efficient system of storage and access was indispensable to efficient movement. Warehousing as an "art," however, has been of more recent origin: and it is only in the last two decades that work has been done on the theory and advanced practice of warehousing, and information disseminated to—and more important used by—industry.

A number of key institutions emerged. First were the Institute of Materials Handling and the National Joint Council of Materials Handling. In 1970 came the creation of the National Materials Handling Centre at the Cranfield Institute of Technology, which quickly established itself as one of the world's leaders in assisting industry to make better use of the systems approach in the field of materials handling and storage distribution.

However, as Mr. Peter Parker, now chairman of British Rail, but then vice-chairman of the *British Institute of Management*, said in a speech to the Royal Institute two years ago, British industry has been slow to respond to these advanced technologies. Mr. Parker thought part of the answer to why they have been so slow lay in the words used to describe the operation: "One of the constraints to the acceptance of the full value and vitality of the new thinking lies in the words "*materials handling.*" If ever a word made a dull low *sound like plonk as it hits the* Board table, this must be it. "Handling" carries with it precisely contrary implications to what we are mostly trying to do anyway.

"The German word *Materialfluss*, or materials flow, illuminates more effectively the area of technology for the design and operation of material movement and storage systems. My own best bet, and I have shown my hand in what I have said earlier, is a synthetic new piece of jar*gon: matflow.*"

Awareness

Matflow, it seems, has not caught on yet, as Mr. Parker hoped it would, while he himself has gone to an industry where problems of "matflow" are even more acute. Yet it seems that there has been a growing awareness of the gains in efficiency which can be made by adopting the "*systems*" approach, and that the U.K.'s *warehouses*, even the more antiquated ones, are gradually being adapted and changed to cope with modern pressures in storage.

The need to think of systems increases continually as space becomes more expensive. A less well-advertised constraint, but no less real, is the cost of labour and the attraction labour-saving *equipment has for those who* can afford the capital cost of installing it. The growth of labour in warehousing in the past 20 years has been remarkable. For that very reason, the major companies are looking more and more closely at machinery.

The warehouse is merely a shell, a covered area in which goods are stored. The art of efficient storage is to have that space used as efficiently as possible for the materials stored there. That means *both* the best use of space *and* the most convenient access possible to the materials themselves, coupled with a readily understandable *stock control system.*

Each of these desiderata interact upon each other to modify each other; ease of access almost inevitably decreases the maximum amount of space available for shelving or racking, for example. Fork-lift trucks need reasonable room to *manoeuvre, much more than a* man with a ladder and block and tackle. The gains in efficiency, speed and economy must be traded off until a working optimum is found.

Crucial

The matter of economy is a crucial one. Surveys conducted in the U.S. *show* that distribution amounts to around 15 per cent. (on average) of the Gross National Product, and that that proportion is a rising one. That means that there *is* increasing emphasis on purpose-built units to ensure an efficient flow of goods rather than relying on *ageing and often ill-suited ones.*

This is exacerbated by the way *material handling and* storage costs are generally allocated. It has been the custom to say that material handling adds nothing to the value, only to the cost. Thus they are fragmented by cost accounting in the production department, and no overall grasp of the problem as a whole can be gained by the company.

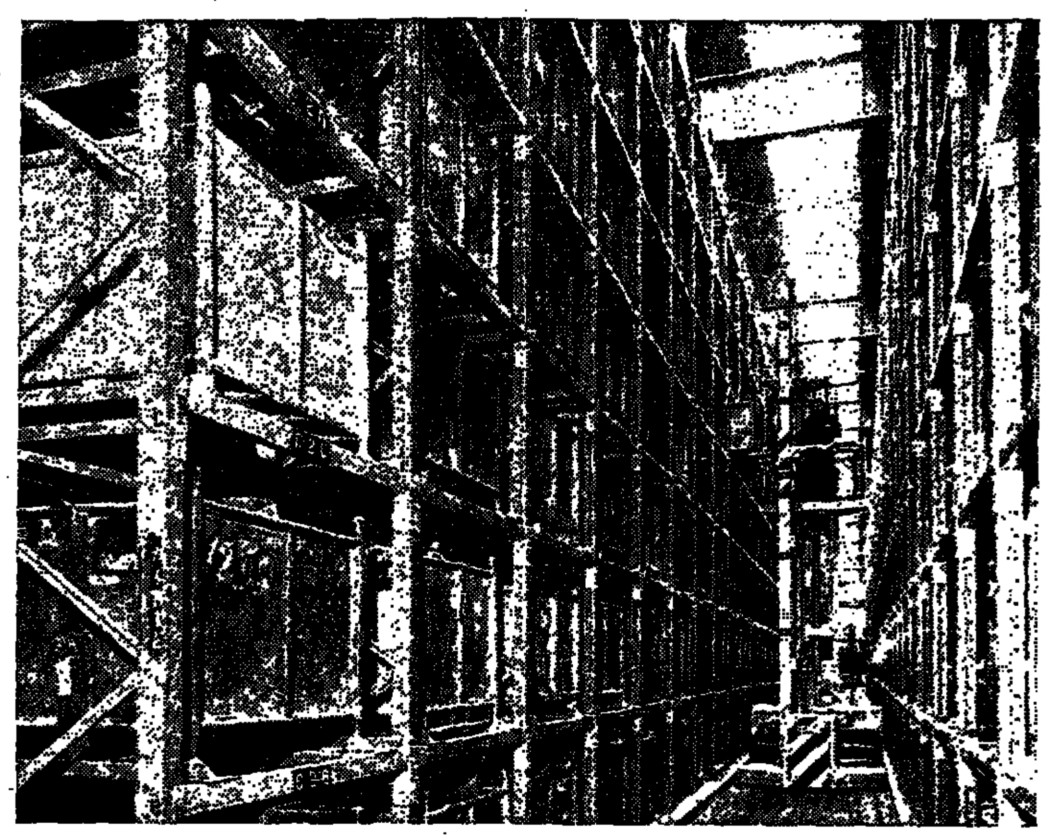
The need for material flow—handling and storage—to be regarded as part of an integrated system is a pressing one if efficiency is to be improved. This would mean that the warehouse would cease to be regarded as a costly (if necessary) shell and rather more as an early part of the production process.

Given that there is a perceived need to be efficient, what can the modern manager do *within his warehouse? First,* he must identify the type of *racking or shelving* best suited to his materials; racking, say, for a steel stockholder; shelving for a toy manufacturer. After that comparatively simple division, he has several choices.

He can, for instance, choose *pallet racking, where he* has fork lifts or elevator loaders; *shelving, where his goods* are more suited to shelves than to pallets. He can choose from different types of these, depending again on the materials and the necessity for speed of access.

Raised structural platforms are being used increasingly to complement the various types of racking and shelving. Essen*tially this is an additional floor,* or mezzanine, useful in older *factories where the total floor* area may already be efficiently *used, but where the height is* not.

Originally, these platforms were either incorporated into the buildings from new, or structural steel engineers fabricated a suitable frame subsequent to building. But now developments in the industry are increasing the flexibility of these platforms, and making it easier for them to be installed.



Dexion Speedlock installation at Henry Wiggins' Hereford plant, the largest in W. Europe for the production of nickel-based alloys.

The flexibility is important in those buildings where the shape is unpredictable or where needs may change from time to time.

The mezzanine floors are most suitable where products are difficult to place on pallets, or where there has been a change in the use to which the building is put. The idea is inherently flexible, because of the choice of materials with which it can be constructed, depending upon the loads it will be called upon to support. Steel plate may be used for heavy loads, load-bearing steel mesh for rather less heavy loads; plywood and, for light loads, chipboard.

The increasing use of a variety of new techniques within the warehouse inevitably brings problems of acceptance—not surprisingly since these new techniques often bear redundancies on their back. Even if they do not, they will require new skills to be learned and new techniques mastered—the various institutes of mechanical handling run a variety of courses in some of these techniques. The systems are best introduced with *extensive* consultation. for the benefits in costs savings, readily appreciated by management, are not obvious, or are even invisible, on the warehouse floor, where work practices have been built up over years and where change, initially, is often for the worse.

John Lloyd

Builder

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manufacturers, however, that when the revival in the economy does get under way, the benefits of proper materials handling techniques learned during the recession will be translated into higher equipment sales.

The specialist requirements of the contracting industry have led to the development among some equipment suppliers of whole new breeds of machinery designed to cope with tough operating conditions. Nowhere has *the* "rough terrain" concept been more diligently pur*sued than in the development* of fork lift trucks which—*despite the* growing range of handling equipment available to builders and civil engineers—remain the principal item of handling machinery on most sites.

Despite the recession, sales of rough terrain trucks in the U.K. have risen rapidly in the last five years or so, with foreign manufacturers doing particularly well. Some of their success has been due to the *appeal of their machines to the* plant hire operators, who see them as a relatively inexpensive investment, simple to maintain and adaptable to meet the requirements of a wide range of customers. In addition, *specialist* operators are not required and the plant companies have been achieving the sort of utilisation rates which provide a high return on capital.

But plant companies apart, the contractors have themselves taken to the new breed of machinery now that labour rates have risen sharply. For years, while comparatively low-cost *labour was available, the* contractor would happily employ *site operatives to man*-handle large volumes of materials. The economics of the exercise have now changed and swung in favour of mechanisation.

The disappointing feature of this trend is that the U.K. manufacturers have in many cases been left behind by their Continental counterparts, although efforts to claw back some of the market won by overseas competitors are now being made.

There is one brighter spot. There seems to be a good *chance that U.K. manufacturers* will fare better in supplying a market sector which is now rapidly emerging in the wake of the rough terrain fork lift truck's development.

Demand from contractors is now rising for rough terrain telescopic handlers, which many *manufacturers believe will* eventually replace the conventional RTFL as the general site handling tool in the same way that the original dumper was overtaken by the fork lift. They believe, as do many potential clients, that the future market lies with machines that can offer an extended outreach, *allowing loads to be placed* accurately rather than simply *being placed.*

Such characteristics are com*monly accepted to be beyond* the reach—quite literally—of *the conventional RTFL and* that the new generation of extended outreach loaders will now quickly be evolved, despite arguments as to what particular engineering principle should be incorporated within these new machines.

Forefront

Again, foreign manufacturers have been among the first to *develop extended reach* machines which provide a high degree of *manoeuvrability, take* a wide range of attachments and perform well over rough ground. But this time, U.K. manufacturers are also to the forefront and JCB in particular says it reckons to have developed a machine which could make conventional RTFLs obsolescent. *The company says its* telescopic handler will, because of its versatility, fulfil most of the functions of a crane and hoist, as well as of a forklift and a loading shovel.

It would be misleading to suggest that the concept of a rough terrain telescopic handler is in itself new, with operators for years deftly adapting existing machinery to create the *desired effect, but only recently* have they been in a position to *purchase custom-made equip*ment offering a less restricted range of capabilities.

Many manufacturers and users, however, would not accept any suggestion that the conventional RTFL is on the way out. The fork lift has a long established history as an invaluable tool in the field of materials handling, not confined to the construction site. With a wide range of attachments *available, from hoppers, skips,* crane jibs, scoops and buckets, *it is hard to see the fork lift's* versatility being easily eclipsed, *certainly in the building sector.*

Higher off the ground, the contractor can also pick and choose from a full range of cranes and hoists designed to ease the job of moving materials around the site. The market for both rental and sales of lifting equipment and aerial *access machinery has been* growing at a fairly substantial rate, particularly on an international level, with contractors' requirements ranging from the smallest swing arm jibs to cranes capable of lifting and locating mammoth loads.

A sign of the times in construction was the recent announcement by crane and lifting specialists Sparrow that it had ordered the world's first 1,000-ton capacity mobile crane, *capable of lifting loads up to a* height of 625 feet. The company *believes the crane has* tremendous potential and will be particularly attractive to those contractors engaged in major construction projects. The order follows hard on the heels of the purchase by Sparrows of one of the world's largest telescopic cranes.

For most contractors on most jobs, however, the requirements are less impressive. In the ordinary course of a contract, he may require use of the full spectrum of handling equip*ment, from heavy plant—such* as scrapers and loaders—to *carry out basic site preparation* work, to lifts, hoists and trucks for the handling of component materials. His choice is wide and competition for his business among equipment suppliers has rarely been greater.

Michael Cassell

Weighing the consequences of automation

REMEMBERING positions, quantities, "trigger" low levels at which re-order action has to be taken, and extracting from order sheets the references for each one of thousands of positions in a big warehouse complex is a relatively simple job for an up-to-date computer.

But between it and the pallets there are many intermediaries and the problems of getting the computer-generated instructions to the men operating the big stacker cranes, or the pickers feeding conveyor systems, have been tackled in a number of ingenious ways—not all of them necessarily economic.

Warehouse and depot control by computer or some other form of electronic "intelligence" has not expanded to the same degree as, say, business computing, which is not to say that programs aimed at warehousing in general—that is, stock control—have been neglected. On the contrary, practically every small system now offered as a package deal will provide stock control as a matter of course.

It is the step beyond the manipulation of the relevant data in the brain of the computer that is not being taken as often as it could—the step in which the slow and cumbersome routine of noting a stock change on a document as a pallet is extracted and returned and then submitting the document to some form of data capture terminal is replaced by sensors which themselves determine what change there has been and report it instantly.

Whether complex mechanical units could become fully automatic is a question for conjecture. Whether they should is another matter. It would not demand a great deal of ingenuity on the face of it to provide a controller to do the same work but artificial intelligence which would allow the controller to take emergency action if something unprogrammed and dangerous happened costs a great deal of money to develop.

Nevertheless, designers of equipment and systems based on the rapidly proliferating microcomputer are very confident that they may well make a great impression on many sectors of the mechanical handling market. The argument is that so far it has been the electronic engineer who has taken the microcomputer as a new tool or a building block with which the engineer has been able greatly to simplify his switching memory, decision and other problems.

However, the argument runs, the mechanical engineer is increasingly appreciating the fact that a micro with some memory and a simple optical sensor can be a valuable unit in a complex handling problem. It could take part of the load off any central computer. And if, instead of referring all signals to this central unit, all local events were processed on the spot and only those relevant to a total operation, or those for which the local unit could not account, went to the centre, the whole array could be made much cheaper.

Not all systems designers see this area as one where networks of low-cost micros will take over from much larger machines. However, it would seem that one is arguing about how long rather than whether. Designers closely linked with the micro warn than the task of restating data processing problems in terms of micro solutions can take a long time.

Meanwhile there are many instances, especially in large and complex installations, where the presence of a computer is contributing significantly to the economics of the whole operation. One of the most recent is on a new 65 feet glass-cutting machine able to handle 10 x 20 feet and plate glass. Made by Pankoke of West Germany and installed by Multiglass, the machine allows more economic usage of raw materials by planned cutting.

To put the sheets into position for cutting an automated pneumatic table swings them from the vertical stillage on to the bench where correct positioning is interlocked with a roller transporter. On the cutting table is a rail-mounted cutting bridge with four heads for longitudinal and one for transverse scoring. Selection of the appropriate heads is by press button with computer feed-out of the instructions to be given to the machine to meet the day's orders.

Hand-cutting of glass on a batch basis is extremely wasteful. Matching of two dimensional shapes on a flat material so as to achieve the best possible job with minimum waste is an interesting mathematical problem and one computers can now solve in a short time.

In the installation, all orders and dates are fed to the computer which schedules cutting sequences so as to produce the minimum of off-cuts.

Award

Several of the big computer manufacturers have involved themselves in warehouse and production line control but the most consistently successful among them seems to be Honeywell, partly because of its long experience with minicomputers. One recent award was by Ross Foods, which is installing £125,000 worth of Honeywell Level 6 equipment to monitor weighers on each of 19 production lines at the Fakenham centre.

Twice as expensive is the work in hand for the four regional transhipment centres being built for F. W. Woolworth. In this instance Level 6 machines will be used to reconcile incoming goods against goods despatched or sorted for local distribution.

Work is in progress in another area of handling—mechanical assembly—to get the computer to do everything itself.

IBM at its Yorktown Heights research centre in the U.S. has spent a great deal of time and money since 1972 teaching machines to recognise a series of parts, determine whether they are in the right position and then bring them together in the right sequence, moving them through the appropriate path to get a fit. This is no more complicated than picking out the appropriate nut from the spares and attaching it to a bolt. In computer terms—remembering that basically a computer is a kind of idiot that understands only "yes" or "no"—the task is immensely difficult, simplified only by the electronic machine's very great speed.

What the Yorktown team has achieved is an assembly which will put together a typewriter sub-unit of eight parts in just 45 seconds. A little thought will show just how fast it is, and the prospect that such a machine could go on doing this endlessly is somewhat frightening.

The fingers on the Yorktown mechanical arm have seven degrees of freedom, are accurate to within five thousandths of an inch and will handle up to 22 lbs. Gauges incorporated in them sense forces from 1/50 ounce to 5 lbs, and a wire feeler ahead of one gripper finger has a touch sensitivity of one ounce.

The unit has been designed to function within a two-foot cube—like many assembly operations in the vast majority of factories. Indeed, this is precisely where the IBM research is aimed—that huge area of manufacturing where factories are producing between 5,000 and 250,000 units a year.

At present the arm needs a smallish computer to drive it, but backed up by a much larger machine to work out instruction sets. Ultimately the team hope to be able to develop plain language instruction ability for an assembly package which could be used to tell the machine what to do through a keyboard.

The Yorktown arm is nowhere near so "clever" as R2D2 in Star Wars. It represents a very significant achievement in manufacturing nonetheless and one in which IBM appears to have secured a world lead.

Ted Schoeters

National Centre's role in information

"DYFOL DONC a dyr y garreg," an old Welsh saying which means "a steady dripping wears away the stone," is the phrase which comes to John Williams' mind when he describes the future work of the National Materials Handling Centre, based at Cranfield Institute of Technology in the Bedfordshire countryside.

The Centre, where Mr. Williams is the director, is a remarkable institution. It was born in 1970, the child of the old Ministry of Technology, the Institute of Materials Handling, the Federation of Associations of Materials Handling Manufacturers and the Cranfield Institute itself. Behind its creation was the growing general recognition among the experts that materials handling was a crucial side of industry's operations not receiving anything like the attention it deserved.

Intention

Handling accounts for a large part of general industrial costs—an average of 35 per cent. of factory costs in a survey of 40 engineering companies by the Centre. But it was all too seldom seen as a specialist activity of its own. The intention was to provide a focal point for information, advice and research covering all aspects of materials handling.

Yet the birth was accompanied by a great deal of doubt. The Centre was intended to be self-financing, though not profit-making, an ideal which has sometimes proved elusive in industry-based research and advice establishments. So there were worries about money in particular.

There were worries too about just how useful a role the Centre would find for itself and, more important, how useful that role would appear to industrialists who might think of themselves as knowing all they needed to know about the physical running of their operations. There was also concern about whether the first flush of enthusiasm which had led to the establishment of the Centre would be sustained.

Now, eight years later, few if any of the original doubts remain. "We are boringly successful," says Mr. Williams to-day when he tries to think of a journalistic "angle" to a story about the Centre.

"First, we knew that we had to be self-supporting when we started. This has meant that we have recruited the kind of staff who are prepared to accept commercial disciplines and to provide the kind of service that industry requires.

"Secondly, we have had the support of the Department of Industry Industrial Technologies programme in recent years. The direct involvement of the Department in bringing home to industry the benefits to be gained from improved material handling had added another dimension to our work. Not only have we had the Department's financial support, we have also had its moral support.

Third, the massive industrial support that we have received means that industry regards our work as relevant to its problems."

What that work is falls into several distinct areas. First, the Centre keeps industry up to date on the development of new techniques in handling via an abstract journal, sent to some 500 subscribers, backed by a specialist library and information service. In 1976-77 the Centre dealt with 440 inquiries, many of them about sources of supply for equipment.

Solutions

Then it operates an advisory service which can involve the Centre's staff in visiting factories or warehouses—149 half-day survey visits were mounted in 1976-77—to look at specific handling problems and to recommend solutions. Areas covered include layout and methods, warehouse management and methods, materials management, distribution strategy, and equipment design and performance.

The Centre's involvement in these aspects of companies' activities can be substantial: in the past year it has been involved, for example, in establishing numbers and locations of warehouses for distribution, optimum delivery routes and vehicle sizes, and optimum levels for finished stock and work-in-progress and procedures for their control. At times it has been involved in complete factory reorgainsation and advising on systems for a large mechanised warehouse.

The trend here is more and more production-oriented; of the survey visits roughly a third involved warehouses and two-thirds factories. This is particularly important in demonstrating the increasing awareness of manufacturing industry that handling can, first, be a problem and, second, that it is an activity calling for specialist expertise.

Very much related to this advisory service is the Centre's work on equipment design and performance, which has been made especial use of by companies whose products are difficult to handle and which are therefore concerned to design their distribution delivery techniques at the production stage. Parallel to this is a market research service used by equipment suppliers and currently being expanded.

Education is another area of the Centre's operations being expanded. Its educational activity is largely based on a series of one-day seminars up and down the country organised in conjunction with the Department of Industry and based on the Centre's research into materials handling costs. Two-day and one-week courses are

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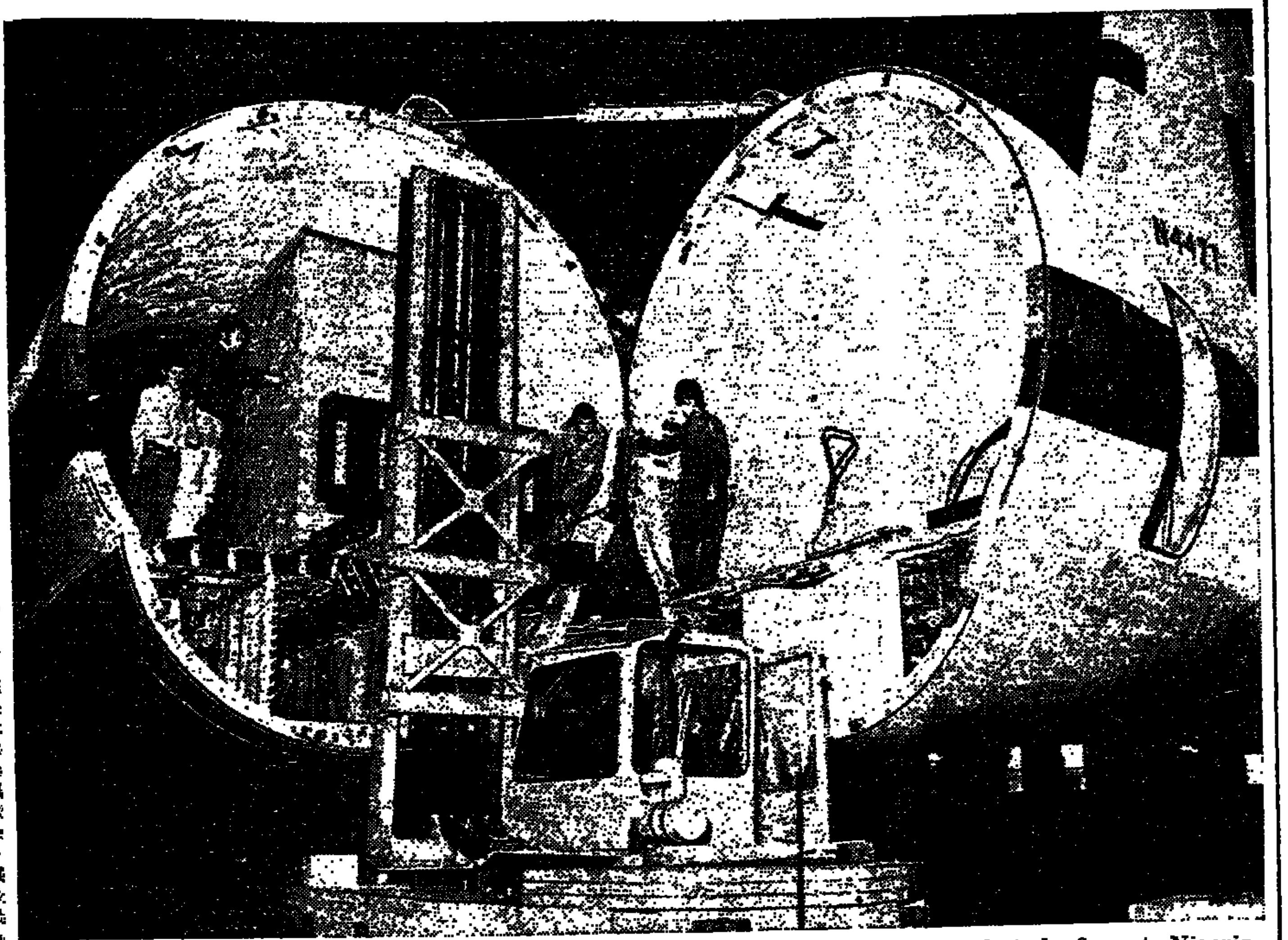

Part of a £1.5m. order by the Nigerian Broadcasting Corporation from Marconi ready to be flown to Nigeria by IML Airchartering.

Growth likely in air freight

WITH WORLD air freight now expanding at an average annual rate of about 12 per cent.—rather higher than the 8 per cent. a year growth being experienced on the passenger side of the air transport industry—it is clear that there is a substantial volume of business waiting to be won by the manufacturers of all kinds of equipment for handling this increasing tonnage of goods moving through the world's airports.

The air transport industry in the past has frequently been a catalyst for new technological developments in a wide variety of engineering and scientific disciplines. Hitherto most of these have been on the side of the design, development and manufacture of aircraft, and their handling at airports, and on the processing of many millions of passengers swiftly and smoothly. But with air cargo development now moving out of the comparative backwoods of aviation into the forefront of airline management thinking, a new era is unfolding.

The reason why cargo handling—with the exception of a few major airlines — has in the past had to take a lower priority than passenger handling is that passengers have been the major revenue-producing traffic, with cargo being more or less a welcome "fill-up." The fact that the volume of cargo was relatively low compared with passenger traffic did not provide any great incentive for a concentration of effort towards improving handling methods.

This is now changing, and the rate of change is likely to accelerate. There was a time when the commonly used method of handling cargo was to haul it from the terminal in trucks and load it into aircraft manually, piece by piece, or by the aid of fork-lift trucks.

Now, with the advent of the bigger "wide-bodied" types of aircraft equipped with large cargo holds in addition to their substantial passenger cabins, the use of containers has become widespread. Shippers can now either load their own containers in their factories or have "freight forwarders" undertake the task for them if their individual loads are not large enough to fill containers in their own right. This is particularly the case with the "package" type of cargo, of which the greater proportion of air cargo still consists, although even this is changing in favour of bulk loads under the stimulus of cheaper rates for such cargoes, especially on a long-term contract basis.

These developments are calling increasingly for mechanised handing methods, both at the point of initial loading or unloading, and in the interim stages—especially, for example, in the airport warehouses at each end of the journey. Considerable efforts have been, and are being, made at some of the major airports such as Heathrow to reduce the amount of physical handling to a minimum, and computerised control of freight loading, unloading, sorting and storing is becoming increasingly common — but, it must be stressed, only at major airports.

Widespread

There are still many airports round the world into which such complex and expensive systems have not yet percolated, and show no signs of doing so. At those airports — and there are many more of them than most people imagine, for there are about 28,000 civil airfields throughout the world of various kinds, from rough grass strips to giants like Heathrow — the old methods of manual labour, supported by the ubiquitous fork-lift truck, still remain the staple systems of cargo handling, and it is these which are likely to continue to provide the biggest market for equipment for years to come.

This is not to suggest that there is unlikely to be a major market for the much more elaborate systems as well. As cargo growth continues, and more and more airports find their existing antiquated systems falling increasingly into disfavour with airlines and shippers, the pressures for the introduction of modern electronically-controlled handling systems will grow. It is likely that more and more integrated cargo handling systems will be installed, where the goods are virtually untouched by human hands from the moment they leave the shippers' plants until they arrive at their destinations.

This will give rise to a demand for an immense variety of items of equipment, ranging from the well-understood fork-lift truck through to air-cushion pallet transporters, roller-conveyors, electronic sorting devices and computer systems for the overall control not only of the physical side of the handling business but also of the documentation, which appears to increase in complexity and quantity as air freight itself grows.

One example of the way in which the handling of cargo has progressed in recent years is afforded by London's Heathrow Cargo Centre, where the unique computerised Customs clearance system known as LACES (London Airport Cargo Electronic Data Processing Scheme) has been functioning for some time. This is a system whereby the airlines, agents and customs inspectors are linked together by computer for the purpose of speeding up the clearance of cargo through Customs.

The parties, through Visual Display Units, are linked to a central computer, which governs the whole system and takes the major decisions on how a particular piece of cargo is to be cleared. Information about a consignment is filed with the computer through a VDU, and the computer advises which procedure should be adopted to clear the cargo most expeditiously, along with a calculation of duties, taxes or other charges payable.

The real advantage of LACES is that it replaces sluggish paperwork with computer electronics, and is helping to make the speed of cargo on the ground more commensurate with the speed of jets in the air.

Before the advent of LACES, the average storage time for a piece of cargo at Heathrow was 72 hours, but the computer has reduced this to about 22 hours, while in some instances cargo items can now take only a few minutes to clear.

Beyond LACES, studies have been under way for some time to draw up plans for improved air cargo handling procedures at Heathrow in the 1980s, and it is expected that these will continue to be based on computerised techniques.

The Heathrow system is the tip of the iceberg of sophistication in air cargo handling techniques. Broadly similar systems have begun to appear in recent years at other major airports throughout the world, but there is still a long way to go before anything approaching LACES and its successor becomes a standard procedure world wide at all major civil airports. Below this level of sophistication there are many different methods of cargo handling, down to the simple use of manpower to hump goods manually into and out of aircraft. With those 28,000 airfields throughout the world, where in many cases cargo is already a major item of daily work, the scope for the development of specialist handling systems is immense. It is a business that can be expected to grow rapidly in the years ahead, as the volume of freight itself expands. It may well act as a catalyst for the development of advanced handling systems that will spread through to other industries through the 1980s.

Michael Donne

Information

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also run. In addition there are one-day events which the Centre describes as systems forums at which four or five speakers discuss problems associated with different aspects of handling relative to a specific operations area and how different systems or equipment can best be used to overcome them. The sort of subjects covered have included materials movement in production areas, high bay storage versus conventional/mobile storage, and the right fork truck for the job.

The research side of the Centre's activities is a further important aspect. In 1976-77, for example, it was involved in studying the problem of pallet recovery, working in conjunction with a steering panel set up by the Department of Industry's Committee for Materials Handling, producing a Government-published report which was launched at a major conference attended by over 280 delegates.

It also received a contract from the Lorries and the Environment Committee, in conjunction with the Greater London Council, to study the distribution operators' problems in delivering to city centres in general and London in particular, and it funded a research officer to work on the application of computer techniques to plant layout.

The Centre's success in all these areas is what has brought it financial stability despite the early doubts about its funding. In 1976-77, a year in which its educational activities accounted for over 2,000 student days, more than double the total for the previous 12 months, it actually achieved a surplus for the second year running. With an income of just short of £220,000, £141,795 of it from research and industrial activities, the profit was a very healthy £47,709.

This is being spent on expanding activities, especially on the educational side, and on recruiting additional staff to make this possible. There is, too, a drive on membership (which is based on companies, not individuals) and in particular on developing a programme based on involvement in research programmes, working parties, and conferences.

What the second year of surplus has made possible is far greater confidence in the Centre's future. "Now that the problem of survival is behind us," says Mr. Williams, "we have greater freedom of choice in the way we can develop in the future. We see our principal role as being that of acquiring the knowledge of techniques used in materials handling and of disseminating them to the advantage of U.K. industry. This is why we are concentrating on the development of our educational role and on the expansion of our information programme to our member companies by problem clinics and seminars."

David Walker

Pool system points the way for pallets

THE PROBLEMS of the U.K. pallet user are well illustrated in the recent Department of Industry report on the subject which suggests on the one hand that more direct exchange or rental systems are needed, but points out on the other that half the pallets now in use are of unusual type or size.

This state of affairs is one which cannot be resolved in the short term without great efforts to standardise, but the recommendation on exchange or rental systems is now being proved correct by the continuing success of the GKN Chep pallet-pool system.

The report, published last year, says that the benefits of the scheme should be examined closely by companies using standard size pallets (1000 by 1200mm) after they have carried out a thorough assessment of their direct and indirect pallet costs.

"Users now operating on the retained ownership principle should also explore the feasibility of collaborating in a direct exchange scheme, in conjunction with a centralised control system designed to minimise unnecessary haulage or empty pallets," it says.

This central recommendation is made against other findings which make alarming reading in some respects. The number of timber pallets in use in 1975 was estimated to have been 25m. to 30m., and an estimated 11.6m. manufactured in that year, but about 3m. were lost or unaccounted for.

Because the rate of input by manufacturers to users could have been low enough to account for some of these "losses," it was not possible to estimate the exact loss, but at the lower estimate of 1m. a year at £2.50 each, the cost is very considerable.

At the same time the report concludes that there is as yet no comparable alternative to the timber pallet for the majority of duties, although it is admitted that some alternative materials are attractive for light duty expendable pallets and others are suitable for specialised duties where special hygiene or sterilisation requirements apply.

It also warns that the use of low-specification pallets in an effort to offset the high rate of wastage is a shortsighted policy, and recommends that in these circumstances users should upgrade their pallet specifications where necessary to reduce the average cost per use.

One area of considerable wastage is identified as the period during which pallets are outside a company's immediate control, where they are sent out loaded for return empty after goods are delivered.

In the case of unusual type or size of pallets, retained ownership is seen as the only practicable system, with more than half the pallets currently in use falling into this category. Rental schemes now available are limited to standard size pallets and their potential is therefore restricted to about half of all pallet usage in the U.K.

However, it is considered that if other problems were eliminated, rationalisation of the types and sizes of pallets currently in use could be reduced to a range which would lend itself to direct exchange or rental systems. Ideally, both systems should be operated in conjunction with a centralised recovery service.

Body

A rental system would, the report says, require an administrative body capable of sorting out minor problems before they become big enough to threaten the system. A direct-exchange system would need a similar body, which would also have the advantage of affording some control to the companies operating it.

"It is not possible at this stage to say which of the two—a collaborative direct exchange system, or the existing rental scheme developed to give wider coverage, would best minimise the total cost of pallet usage. Both need effective competition for maximum efficiency," the report concludes.

Although not referred to specifically, the GKN Chep rental scheme has clearly had considerable influence on the report, which admits that this system largely avoids all the sources of wastage associated with other systems, such as the failure to repair pallets, use of poor quality pallets and complete loss of use through casual destruction.

This does raise the question of concern among customers of rising long-term rental costs and the danger of a monopoly arising out of the operation of a large-scale operation needed for maximum efficiency. However, it points out that the rental operators' counter to this is that there is always room for competing rental companies and that customers are always free to revert to their previous system.

At one extreme, the use of a rental scheme is seen as an effective one-for-one exchange arrangement which is clearly attractive to companies experiencing a high loss rate. At the other, a large distribution organisation which uses pallets to deliver goods between companies within a group can obviously operate its own low-loss pallet service at a cost well below that of a rental service.

The only real criticism of rental in the report is that some additional costs do arise due to the need for participating companies to retrieve empty pallets from their customers, either to haul them back to their own factories or to the nearest rental depot to de-hire them.

The activities of GKN Chep have in the meantime continued to expand and with 14 depots it regards its cover as fully national, although more will be added to bring this number up to 22 eventually. More than 1.25m. pallets are now in the rental system and this figure is growing at the rate of around 10,000 a week.

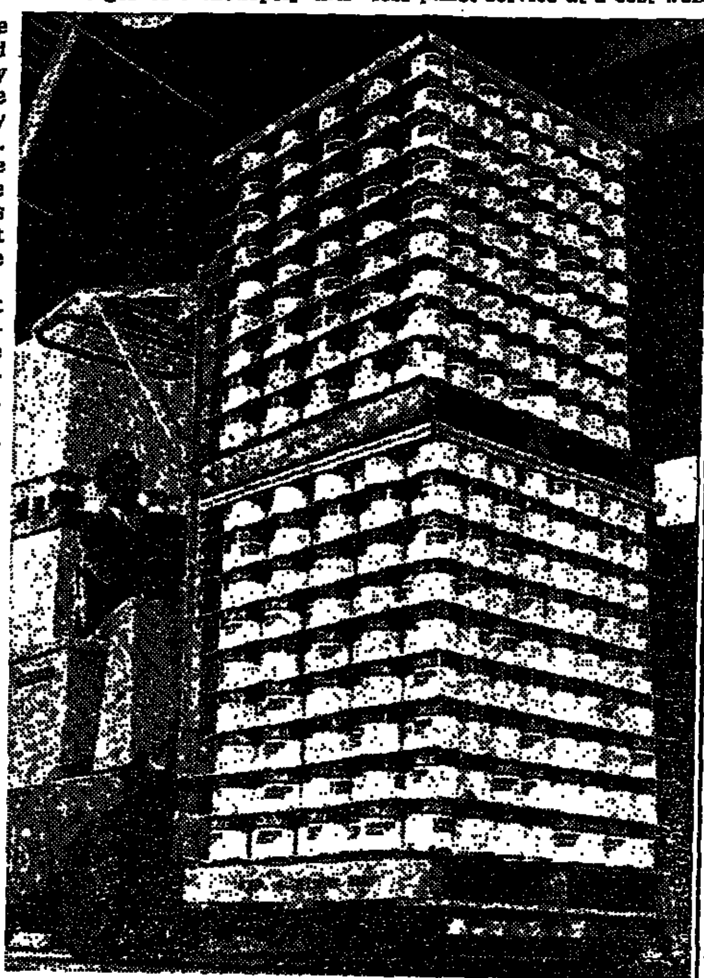
From its fairly narrow base of food and related industries, GKN Chep is now moving into other areas and recently introduced a pallet cage system which it hopes will prove attractive to manufacturing industry. Another encouraging sign for the company is more rapid movements of pallets within the system.

It is now thought to be the largest single purchaser of pallets in the U.K. and is continuing its policy of spreading its buying among suppliers. It has also conducted studies on the introduction of half-pallets, designed to appeal to customers who need to supply straight on to the floor of retail shops.

The company's main problem so far has been managing its rapid rate of growth, which was reflected by the claim that it went into profit for the first time last year following its initial investment of around £6m.

The success of this venture so far has gone a long way to prove the point about the advantage of a centrally administered system and at its present rate of growth it appears to be leaving little doubt that rental is here to stay.

Lorne Barling



Each pallet in this double load is held with Lawce polyester strapping, and on a lift truck will absorb any shock as one unit.

Training for safety

DESPITE ITS undoubted value as a mechanical handling technique, the fork-lift truck has a bad safety record in factories and warehouses. A special study carried out in 1974 revealed that up to 70 per cent. of accidents involving vehicles in factories had fork-lift trucks as the cause. In addition, some 9 per cent. of deaths in factories in that year were due to fork-lift trucks.

A substantial number of these accidents could be attributed to driver error. Operator's ignorance of the regulations and principles of lifting resulted in accidents during the lifting, stacking, and lowering processes.

In 1976, the last full year for which figures are available, fork-lift trucks were directly responsible for some 30 deaths in factories and over 5,100 accidents. In warehouses and on the docks a further five people were killed in almost 400 accidents.

The safety of employees in areas where fork-lift trucks operate depends upon such factors as safe systems of work, adequately trained operators, well-maintained trucks of safe design and manufacture, a suitable environment, such as smooth and level floors, and segregation of pedestrians and trucks as far as possible.

But it is the lack of training of operators that continues to be the most dominant factor in fork-lift trucks' safety. Virtually anyone of any age or temperament can be put in charge of a potentially lethal vehicle weighing from 6-8 tons and costing up to £20,000.

In a recent report the Health and Safety Executive points out that some operators used fork-lift trucks to lift a man to a working position for a short period. In each case the executive studied, the man either straddled the forks or stood on a loose pallet. In none of the cases scrutinised had the trucks been adapted for use as a working platform.

The Executive comments that accidents caused by this wrong use of fork-lift trucks are unlikely to be reduced unless drivers are properly instructed, trained and licensed, before being put in charge and their performance subsequently monitored.

It also points out the effect that an improvement notice can achieve. In one medium-sized factory, for example, there were some 50 drivers, none of whom had received any formal training. Following an incident when one driver collided with a stationary object, an improvement notice was served requiring the firm to adequately train their drivers. Subsequently a senior engineer attended a course run by a firm of truck manufacturers and on his return, instituted a formal training course for all drivers. All successful applicants were duly licensed for particular types of trucks.

Prompts

The investigation of a single accident or dangerous occurrence by the Factory Inspectorate often prompts wider investigations, either at national or local level. This is illustrated by the general inquiries which were instituted at a local authority wholesale market following the death of a 16-year-old fork lift truck driver. The truck overturned when he swung the steering wheel hard over at speed, contrary to the minimal training he had received during one month of employment.

It was found that although the local authority owned and operated the market the individual traders ran their own internal transport system and that more than 60 trucks, mainly of the fork-lift truck types, were in use on the site.

Several of the companies, including the one for which the dead youth worked, did give instructions to their employees before they were officially allowed to drive vehicles. But the standard of this instruction varied considerably and only one company had sent any of its drivers away for external driving courses. Generally, however, there was no formal system for ensuring that only trained drivers used the trucks. Youngsters straight from school had been allowed to drive the vehicles within the market precincts without any training at all.

Following the Health and Safety Executive's investigation into this particular case, a meeting was arranged with the council and market traders. A plan was drawn up for the normal training of truck drivers and for a scheme of work where only such drivers were allowed on the vehicles within the market precinct.

The consequences of accidents involving trucks overturning have always been severe. During 1976, the year studied by the

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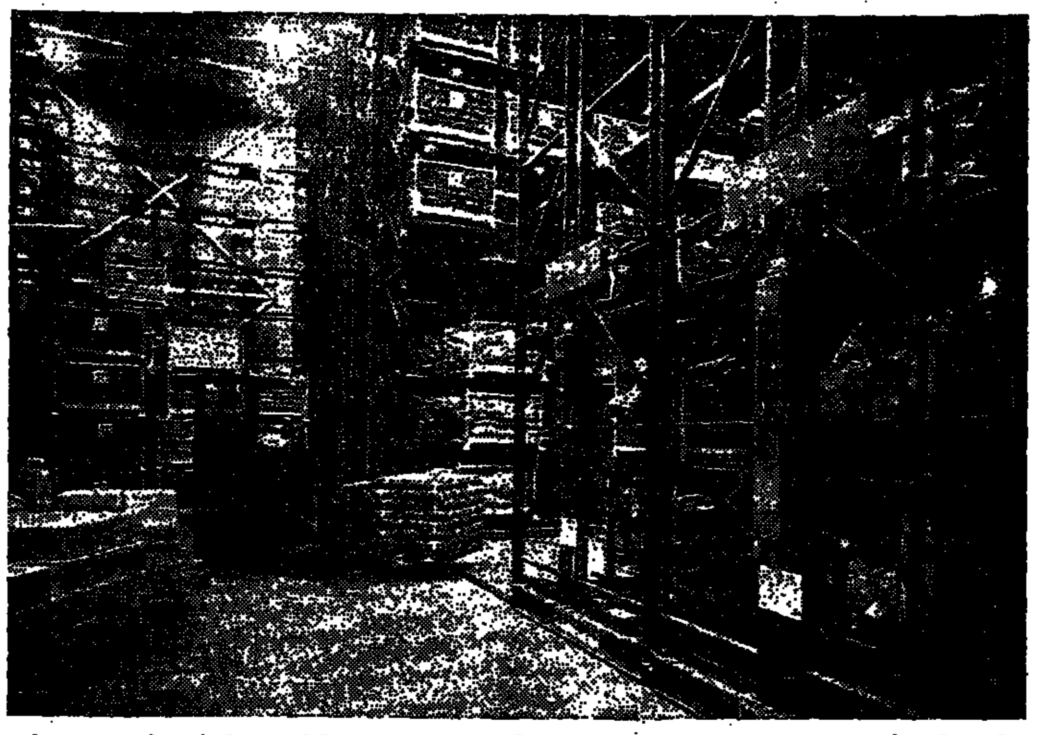
MECHANICAL HANDLING XI

Racking methods improve

THE RAPID developments in types and range of racking and shelving equipment has been stimulated by constant pressure on management to utilise space to best advantage. This pressure has generated a wide variety of types of shelving, which in turn means that the business has grown substantially over the past ten years.

There are now a number of standard racking and shelving system on offer, from over 20 major companies. The basic system is the simple frame; the difference between racking and shelving being that racking is a skeleton framework of fixed or adjustable design to support loads without the use of a steel or wooden base, whereas shelving is such a frame supporting a series of bases which in turn support loads.

There are several types of racking. One is mobile racking which is mounted on moveable base frames running on rails. The frames can be power-operated, manually operated or mechanically assisted, depending on the needs of the company. Then there is cantilever racking, with fixed or adjustable racks supported by cantilever arms to give extra strength where required.



An example of the mobile racking and high density storage systems developed by Storax.

Dynamic

Another system is dynamic storage racking, where a block of storage in depth is provided, with a rear or "loading" face and a front or "picking" face. Goods are conveyed from the loading to the picking face either by gravity, using an inclined surface or track, or by a horizontal powered conveyor. The advantage of such a system is that only two aisles are required to service a block of storage, thus saving aisle space and converting it into storage space. Lastly, in what is known as drive through and drive in pallet racking, blocks of static storage are provided in which pallets are stored two or more deep. The racks are arranged in bays into which fork lift trucks can move to retrieve loads.

Shelving follows the simpler designs of racking systems, but is obviously less flexible, since the fixed bases act as a constraint on the mobility and arrangements of the loads they carry. Besides basic shelving, there are on offer cantilever shelving and mobile shelving, both on the same principle as their racking equivalents.

Racking can be and is further sub-divided by two main types, pallet and storage racking. The first takes the pallets, or portable platforms, which are usually handled by fork lift trucks. The pallets and their loads remain together on the racking throughout their storage life, to allow ease of handling by the fork lifts when they are to be moved again. The second type—storage racking—is adapted for more or less standard containers which have no pallet base.

The three major companies in this field are Acrow (Automation), Dexion and Link 51. All three offer most of the standard varieties of pallet racks and storage racks. Also strong in the market are Bar Productions (Mechanical Handling); Finspa Engineering; Hi-Lo (Mechanical Handling); Steel Fabrications (Halifax) and Welconstruct.

The industry as a whole has developed from a large number of small companies producing a comparatively restricted range of simple equipment into one where there is a large capital investment and where the range of products is sophisticated and increasingly adaptable. Besides the pressure on space and the consequent market demand for better and better systems, there is the growing pressure of competition from an ever-more inventive industry, which has been successful both domestically and in export markets.

A third stimulant for companies in the U.K. has been the efficiency of the country's retailing chains, and the need of these chains for storage systems in warehouses which can respond to the stores' demand for rapid replenishment of their shelf stock. That in turn has led to examination of better ways both of storage and of access to the stores. Hence the development of drive-through and drive-in racking, and of the mobile and dynamic storage racking and shelving.

Racking can now be well over 100 feet high, and as deep as the nature of the materials stored, and the method of access to these materials, will allow. The racking can be clad, or strengthened, to form the main structure of the building. The systems are increasingly being installed as integral parts of new warehouses, factories and offices: but they must also be flexible enough to be put into old buildings which were not designed for their use. Thus they often need to be installed to very fine tolerances, and equipped with guidance systems to suit the new generation of handling and access equipment.

How access is gained to the racking is thus almost as important as the type of goods stored on it. At the simplest level the racking is used to store light loads which are placed there, and taken off, by hand. More typically, however, shelving is used for the lighter loads (as office stationery, for example), and racking for heavier, industrial loads. For the latter access is typically gained by fork-lift truck, or by belt conveyor or vertical conveyors.

Advanced

A good example of an advanced system of pallet racking, which is combined with computer control, is to be found at the main warehouse of Penguin Books near London's Heathrow Airport. The books are stored on pallets in high-racking reached by fork-lift trucks. Orders from the retail outlets are fed into the computer, and appear in the warehouse office on a punched card, indicating that the shop in question wants so many of this title, so many of that, so many of another. The fork lift trucks feed storage bays with titles; the storage bays are interconnected with a little railway, on which computer-controlled trucks, each one commanded to make up an order for a shop, shunt to and fro.

On arrival at the bays the trucks are loaded by hand with the relevant number of books indicated on their card; they then shunt to the next bay and so on until the order is completed, finally shunting to the distribution point where the books are packaged and despatched.

While the system depends in part on computer control and in part on the relative ease of storing books, it also depends on easily accessible racking systems which can be both replenished and emptied swiftly. The system itself thus contributes to the rapidity of turnover of the product, and to the speed with which stocks — especially of a popular title — can be replenished.

The future development of racking systems will almost certainly be towards increased automation. A research programme into these and other storage systems is presently being conducted by researchers in Strathclyde University on behalf of the Storage Equipment Manufacturers' Association of the U.K. and their European counterparts, grouped together in the Fédération Europèene de la Manutention (FEM). The research programme will take around three years, and it is hoped that it will contribute to some standardisation of equipment and styles on a European-wide basis.

However, one can anticipate the results of the research programme to some extent by noting that the three pressures which have contributed most to the development of racking systems — pressure of space, of competition and of increasingly efficient retailing — are likely to go on growing.

John Lloyd

Safety

CONTINUED FROM PREVIOUS PAGE

Executive, there were a number of fatalities where drivers were crushed between the framework of the cab or canopy and the ground. The obvious question, the Executive points out, is whether the traditional design of the cab could be modified to prevent this type of accident.

The Executive also comments that some larger companies now use insurance companies to carry out scheduled periodic inspections of trucks. But accident investigations have shown that these are still in a minority. Frequently there has been no planned maintenance and what has developed is a breakdown repair system.

A useful booklet on the causes and prevention of factory accidents, published by the Royal Society for the Prevention of Accidents, points out that "safety depends on sound maintenance, which is why every crane or other lifting machine has, by law, to be thoroughly examined at regular intervals." The booklet makes clear that this is a management responsibility but says that the actual examination is usually done by an insurance engineer.

Every crane or lifting appliance has a maximum safe working load which should be clearly marked on it. It is dangerous as well as illegal to lift a load greater than this safe load, ROSPA points out.

Collapse

"A crane is designed to lift a freely hanging load, and the safe working load is calculated on this basis. If it is used to shift a load which is jammed or to lift at an angle from the vertical, it may be subjected to an unpredictable load. If the load catches on anything during lifting, the 'snatch load' may be many times the weight of the actual load. It is easy to overturn a crane in this way or to cause it to collapse."

The Health and Safety Executive gives an example of an accident involving a crane. The collapse of a rail mounted scotch derrick crane which had been examined within the previous 12 months drew attention to the need for regular and special examination of a bent piece of metal of rectangular section known as the "gland iron" which connects the back stay with the mast.

The accident occurred in a shipbreaking yard. The bottom of a trawler had been cut into a number of sections ready for removal. The maximum safe working load of the crane was five tons but the weight of each section of the trawler could only be estimated. The weight of one of the sections was being taken by the crane when there was a loud crack and the 120 foot long jib, mast and one of the back stays toppled over the sloping quayside into the water. The cab was pulled over with the mast and broke against the quay edge, trapping and seriously injuring the driver. Investigation of the incident pointed to the failure of the gland iron. It was found that about one quarter of the total area of the break on the gland iron had been cracked before the failure and that the rest had failed through fatigue cracking. It is doubtful if visual inspection of the gland iron would have revealed a crack.

Following the incident the company concerned arranged for all the gland irons on their derrick cranes in the U.K. to be non-destructively tested. Further defects were uncovered and urgent remedial action taken.

Pressure for more stringent checks in all areas of safety are likely to intensify later this year when the new statutory safety representatives and committees come into force under the Health and Safety at Work Act. This should encourage more employers to realise the potential killers in the factory.

David Churchill

The docks resist change

ACADEMIC INSTITUTES and the research and development departments of engineering companies continue their steady output of new products, from minor modifications to revolutionary concepts, but the world's port operators are not in a mood for dramatic change.

The pace of change has been rapid in ports in the last 15 years thanks to the containerisation of large sections of world seaborne trade a more than fourfold increase in the size of many ships and the more complex factors which have led to a steep decline in the port industry's workforce.

All these developments have contributed to the pressure on the design of mechanical handling systems at ports and the feeling is that operators and their customers require a period of stability and some time to make minor improvements on the changed fundamentals. Even if this requirement did not exist for operational reasons, the poor financial condition of the shipping industry would preclude large-scale investment in change.

Workhorse

It is interesting to note that even where finance has been less of a problem in the booming and fast-growing ports of the Middle East, and where the best in Western port consultancy skill has been available at the design stage, conventional solutions have been adopted for the most part.

A typical problem on which a great deal of energy has been expended is that of straddle carriers, the basic workhorse of the container berth, and used for moving containers to storage areas, where they can be fed by gantry cranes to the backs of lorries or railway wagons.

When the National Ports Council set out to analyse container berth systems about two years ago with the aid of consultants and a panel of experts from bodies such as the British Transport Docks Board, it considered closely the case that the straddle carrier had had its day and should be designed out of future systems. The idea was that cleverly positioned rail-mounted cranes could do the same job, without the safety hazards of straddle carriers, which are exceedingly difficult to drive, the excessive quantity of down-time on the vehicles—25 per cent. is normal—and without throwing greasy hydraulic fluid all over the berth surface, as was the case with the early and many current straddles.

The Ports Council report eventually decided that if straddle carriers had not existed then they would have had to invent them. No other vehicle offered the same speed of movement and relatively low manpower requirement combined with the flexibility of the straddle. If only shipowners and freight forwarders could have every consignment for their ships planned at least a day in advance, perhaps a fixed rail or other type of crane system would have done, but the inevitable late arrivals of almost every ship make these alternatives less practical.

Not that this has ended criticism of the straddle carrier, but it has concentrated the minds of most critics more on improving design rather than questioning the concept. The main change has been a trend away from hydraulics in favour of diesel-electric or mechanical drive although a number of container ports in the U.S. have gone in for mobile, rubber-wheeled gantry cranes and in Britain, Felixstowe has chosen a similar solution using Transtainer cranes. It claims the Transtainer system will give it 50 per cent. faster throughput. Netherlands has been one of the pioneers in the field of electric straddles, indeed it only became involved in manufacture of straddle carriers in 1967 because it was called into deal with maintenance problems on a fleet of hydraulic straddles built by Clark. (The manufacture of Clark straddle carriers in the U.K. was taken over by the Ferranti group at the end of 1976.) The manufacturers of diesel-electric straddles claim the vehicles suffer only about 10 per cent. down time.

The main snag is that electric straddles are more expensive and for a port which has a substantial skilled back up of mechanics, the extra cost may well prove unjustifiable. The vehicles have naturally proved popullar in areas like the Middle East where maintenance skills are at a premium and where high temperatures aggravate the problelms of hydraulics.

One problem of an operational rather than technical nature facing container shipowners on the mechanical handling front is whether and to what extent to equip their vessels with self-unloading equipment. In general terms there is no doubt that the need for gantry cranes on ships is decreasing as ports in the developing world equip themselves to deal with the container revolution, but many owners still prefer the independence which self-unloading confers and which can be vital in the event of a disruption to normal port services by weather, strike or other disturbance.

When it comes to cranes for handling bulk goods, the main trend has been towards machines capable of heavier lifts at more rapid intervals. The basic concept of the transporter bridge, capable of handling a wide variety of cargoes, has not changed much in the last 20 years, but modern cranes are capable of discharging 3,000 tons an hour. Although there have been many predictions that this rate of operation and therefore, by implication, the transporter bridge crane concept itself would be inadequate as bulk carrier sizes grew, the slump in world trade has in fact impeded this development. There are still very few bulk carriers in excess of 100,000 dwt.

The main improvements sought in bulk-handling cranes are in speed of operation and, a related question, better designs of mechanical grab. The crane builder's contribution is to increase the actual speed of movement between cargo hold and discharge point by shortening the distance of grab travel and to design for higher grab payloads beyond the current maximum of 50 to 60 tonnes.

Damage

Among the problems created by heavier payloads are the risk of even greater damage to vessels' holds and hatch coamings. This is partly the reason why so much manufacturers' effort has gone into increasing the lifting capacity of the grab, while reducing the weight of the grab itself. Designs vary widely to deal with cargoes from lump limestone to sugar, but the versatility of the bulk crane ensures it a future against its more modern challengers.

These challengers mainly come under the heading of continuous unloading systems, by which can be meant a bucket-chain, slurry pipe, pneumatic pressure system, or conveyor belt.

None of these systems is in wide use, although most have been tried somewhere. Technically feasible, although capable of refinement, they are awaiting a new age of large ship loads, fewer discharge terminals and even lower manpower provisions. Continuous unloaders can also be fitted to the ships themselves, which is a very expensive form of cargo handling, but permits vessels to discharge into virtually unmanned storeage parts at any number of locations within a small radius.

Similarly, it would be feasible to take the idea of slurry transportation for dry bulk goods a stage on from the present position where dry substances are mixed with water at the ship's side and pumped to an inland terminal. It may in time become more economic to convert the cargo into slurry at the point of loading and transport it in large tankers, for pumping into holds rather like refinery towers.

Another advantage which will increasingly weigh in favour of continuous unloaders is the growing environmental pressure to avoid dust. Control of dust with a crane and grab system is difficult, although improvements have been made in recent years, but an enclosed continuous loading system, which avoids dropping powdery substances such as phosphate from a height, is of a different order in this respect.

It is the case too that because continuous unloaders operate at more or less constant speeds, they can require less energy than a conventional crane, although for the time being this too is not a factor to offset the high capital cost involved.

Ian Hargreaves

The Institute's aims

MATERIALS HANDLING is probably one of the least appreciated aspects of industrial activity. Companies will spend large sums modernising their production processes and expend considerable efforts in trying to cut down overheads. But, the extent to which the handling of the raw materials involved in those production processes and the storage and final shipment of the end-result add to those overheads often goes unrecognised.

If the situation has been improving in recent years—and the signs are that it has, though nowhere near enough—a fair part of the credit must go to the Institute of Materials Handling. Based at Maidenhead, Berks., the Institute was formed just over 25 years ago with five principal objectives:

1. To promote the science of materials handling and to further the knowledge and appreciation of that science among the public generally;

2. To encourage and advance the study of techniques of materials handling in all its aspects;

3. to stimulate and promote research into the development and improvement of these techniques;

4. To increase the effectiveness of all manual workers by the study of methods of saving muscular effort and strain by scientific planning, and by the provision of the most effective mechanical aids;

5. To extend, increase and disseminate knowledge of, and facilitate the exchange of, information and ideas in regard to materials handling.

How far the Institute has succeeded in meeting those aims is difficult to assess. It has built up a large membership both in Britain and elsewhere—there are some 3,000 members in this country, while 40 per cent. of the total membership is from overseas—elected as individuals rather than company representatives. It was one of the driving forces behind the establishment of the National Materials Handling Centre at Cranfield near Bedford and has played an important role in the Department of Industry's Committee for Materials Handling, the source of, among other things, an invaluable series of of pamphlets on various aspects of handling.

It is also actively involved in education, being behind the Materials Handling Certificate courses operated in various colleges of further education, and takes part in international conferences and exhibitions as well as those in the U.K. It publishes its own regular newsletter and operates an advice service. Last, but very far from least, via its regional branches it brings together people actively involved in materials handling at regular intervals for functions which may be largely social or may have a serious topic in front of them but which, in either case, provide a forum in which people with a common interest in an important subject can exchange ideas and information.

Yet within the Institute itself there remains some doubt as to how effective it is. For materials handling is in some ways an unidentifiable activity. An aspect of so many things, touching on nearly every essential material aspect of life, in but a few cases does it provide a career, giving its practitioner a clear role such as other professional activity might.

Similarly, it embraces at least three distinct concepts: the physical (the movement, handling and storage of materials): management (effective planning, control, review and improvement of the physical aspects); and technology (the techniques required to meet physical and management aspects).

It is the difficulty in getting across the importance of the whole subject which has prompted the long hard look at itself which the Institute has been undertaking for the past year or so. One aim is a big increase in membership—the 3,000 level was reached some five years ago and since then the numbers involved have remained more or less static—which will in turn add greatly to general awareness of the key role handling plays in all aspects of the world economy.

"We have not only got to double our membership very soon with men of the right calibre but, more important, we must retain it," Mr. Howard Hicks, the Institute's president, exhorted members recently.

Mr. Hicks, chairman and chief executive of the IDC Group, which he founded in 1957, is the Institute's first president, appointed just under a year ago in a move which marked the organisation's 25th anniversary. Much of the impetus behind the examination of the Institute's success in meeting its self-proclaimed role stems from him.

Changes that have followed include the appointment of a number of vice-presidents, all of them well-known figures within industry (in the very broadest sense: one, for example, is Major General Mike Callan, Director General of Ordnance Service in the Logistics Executive (Army)) whose connection with the organisation can only help to promote it.

On top of this, a committee has been set up to review services to members, which Mr. Hicks admits have been "inadequate." Considerable thought has been given as well to the possibility of a change of name, a point which might appear superficial but which, given again the difficulty of identifying everything that materials handling is about, is a matter of some importance.

The problem is that there are many areas between the management strategy related to handling and the engineering side of the operation—purchase and design, installation and maintenance of handling systems—where the role of the specialist body such as the Institute, and indeed the specialist individual, is blurred. As a result, the bridge which should exist between the Institute as a generator of good industrial practice and industry as its beneficiary is broken.

To quote the Institute itself: "Materials handling still does not impress senior management sufficiently as a subject which could help performance in any of the defined areas of industrial management. . . One major problem in industry is that the way in which materials handling responsibilities are shared between line and staff management depends on company strategy . . . All line management is responsible in some degree for handling materials in the manufacturing and distribution cycle. It is in fostering awareness of the degree of that responsibility and its impact on cost and profit that the IMH's role is seen to lie."

Agreed

It was over five years ago that the Institute started looking at its name: indeed that there should be a charge was agreed then. But there was no agreement as to what to. Only recently the Institute of Materials Handling Engineers was being put forward as the potential alternative, but that was ruled out in the end as focusing attention on just one aspect of a multi-sided subject—engineering, though highly important, is but one of the things the Institute is about.

One new factor making the question of name currently a subject of discussion is the forthcoming winding-up of the Department of Industry's Committee for Materials Handling. Set up in 1973, that is due to lose its Government sponsorship in November, but there is considerable interest in industry in ensuring that it continues to exist in some form or another. The Institute has been asked whether it would be interested in sponsoring it and has said yes, though whether the change-over, which would probably involve the committee's broadening out into a National Advisory Council, will actually take place is not yet known.

But if it does that will itself bring changes to the Institute. One of these could well be that it adopts that part of the Committee's title which is in parenthesis—its full name is the Committee for Materials Handling (Management and Technology)—as part of its own nomenclature, stressing the two streams which between them go to make up the art-science of materials handling.

D.W.

SOCIETY TO-DAY

An immigration problem to make ours pale

ANYONE WHO persists in imagining that we have an immigration problem should cast an eye across the Atlantic. As the American phrase has it, "you ain't seen nothin' yet."

Under present law the U.S. limits legal immigration to 290,000 a year. Add in dependants and you get close to 400,000. That is something like ten times as many as we are *currently accepting into Britain,* although their population is only *four times as large as ours.*

A few Americans have begun to notice that *400,000 a year is* twice as high as the rate of inflow between 1924 and 1965, when the annual average was 190,000. Fewer still have begun to notice what may be an even more significant shift —away from predominantly European immigration and towards an inflow from Asia of a size that our own home-grown xenophobes could not begin to comprehend.

Panic

To understand this one has to look back a bit. Between 1900 and 1910 over 4m. immigrants from mainly southern and eastern European countries responded to the famous inscription on the *Statue of* Liberty—"Give me your tired, your poor, Your huddled masses yearning to breathe free..." Because America's prime source *of new white blood had previ*ously been *northern* European there was something of a panic. Congress began to impose literacy tests, Asian-exclusion clauses and, finally, the national origins quota system in an *attempt to keep the republic's* ethnic mix stable.

In 1965 this policy was abandoned, and to-day all countries are subject to a theoretical limit of 20,000 emigrants to the U.S. *per year.* Thus there is a ceiling on the number of western Europeans who may be given visas. As it happens, the rate of application for immigrant visas has dwindled on this side of the Atlantic—*but it is rising* fast in Asia. Chinese, Koreans and Filipinos come in at the full 20,000 rate, with the Indians only just behind. Waiting lists from such countries are long, and growing. The effect has *been dramatic:* by *1975* legal immigration from Asia to the U.S. was half as high again *as* the inflow from Europe.

Nor is this the only source of Asian immigrants. As Elizabeth Midgley points out in a long and brilliant review of the subject in the April issue of the Atlantic Monthly, about 165,000 refugees have come in from Indo-China since 1975. There are many cruel obstacles in the way of these "boat people" but over the next five years a further 150,000 might reasonably be expected to cross the water and settle in the U.S. If they come, writes Mrs. Midgley, "*the final result will* be the acceptance of 315,000 people as fall-out from the American defeat in Indo-China."

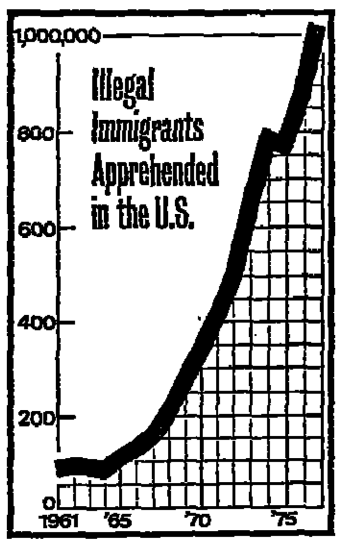
In spite of all this, there is no serious movement in favour of curbing legal immigration into the U.S. Like us, native Americans are no longer producing enough children to ensure growth in their population; in fact they look set for a *slight decline. Unlike us—and* blessed with far more space than we must make do with —they are not roused to a state of national tantrum at the prospect of immigration from the whole wide world.

This would all be remarkable enough if immigration simply stopped there. But when one turns to *illegal* immigration, *you really ain't seen nothin'* yet.

The commonly accepted figure, which by its nature cannot be precise, is some 800,000 a year. In British terms, and allowing for population differences, that would be about 200,000 a year and might lead to *rioting in the streets* and the return of a government of such extreme unpleasantness that one's only option would be to queue for an immigrant visa to the U.S.

Over there they are taking notice, but relatively little. There have been calls to "do something about it," including President Carter's message of last year, but it is generally expected that little or nothing will be done. Opinion is too diverse, and the pressure to reduce illegal immigration is too *feeble.*

Any British politician who does not credit this need only take notice of the proceedings of the Senate Judiciary Committee, which is due to begin hearings to-day into a Bill on the lines proposed by the President. This would grant an amnesty to an unknown number of illegal immigrants already settled in the U.S., and *impose a fine on employers who* knowingly and persistently hire people who cannot prove that they have a right to live and work in the country.



In Washington it is generally conceded that the Senate com*mittee has left its deliberations* until late in the season. For Congress this is an election year, and even if by some mischance a workable Bill did pass through the Senate it would stand little chance in the lower House.

To the British eye another peculiarity of the American approach to illegal immigration is its politics. People broadly on the Left in American terms may be opposed to it, because, to use the President's words, there is a danger of establishing "a permanent 'underclass' of millions of persons who have not been and cannot practically *be deported, and would continue* living here in perpetual fear of immigration authorities, the local police, employers and neighbours." This is the case in favour of an amnesty. Competition with unskilled and largely non-unionised American workers, who fill the low-paid jobs and the unemployment queues, is a reason for opposing further illegal immigration.

On the Right, however, the continued influx of cheap labour—to work in agriculture and menial positions in Texas, or in sweatshops in Chicago, or in domestic kitchens in Washington D.C.—is not viewed with any *particular distaste.* Americans who might be Thatcherite Tories in this country see such a flow as a necessary underpinning to a growing economy. The economic benefits count for more in their logic than the social consequences.

American border patrol officers question three Mexicans, apprehended as they tried to slip across into the U.S.

Everyone involved in the American political debate has already rehearsed the arguments many times over. Bills aimed at curbing illegal immigration have been put before Congress in each of the past four years — albeit with no success. One particular difficulty is that no one really knows the number involved (a special census was to have been *completed* last year, then this spring, and is now not expected to report until the "autumn or next year"). Another is that it is widely believed that the problem boils down to an ebb and flow of manual labour across *the 2,000-mile border* with Mexico and that this can be related to the economic cycle.

It is certainly true that most of the illegal aliens recorded in the files of the Immigration and Naturalisation Service are Mexicans, but that is partly because its overstretched officials have paid most attention to the Mexican labourers — "wetbacks" — who constitute the overwhelming majority of those shown in the graph accompanying this article. Again, the numbers in the graph may not reflect true immigration, because many Mexicans turn right round and come back after being deported. There is much *double-counting.*

But the Mexicans, numerically preponderant though they may be, are a special case. They walk into Texas as though they own it, and some of them think they still do. One is reminded of the "special case" of labourers from the Republic of Ireland *taking the trip to* Britain. In both instances it is almost impossible to assess how many plan to stay permanently, if they can, and how many are simply earning money to send or take home.

Behind the Mexicans, however, lie long queues of other Latin-Americans and Caribbeans. Jamaicans drive taxis in Washington. Illegal aliens from Haiti, or the Dominican Republic, or Guatemala, are being apprehended in significant numbers. The Domestic Council on Illegal Aliens, which reported in December, 1976, indicated that among other major sending *countries were Colombia,* Peru, Ecuador, Thailand, Iran and Nigeria. (Canada and the U.K. show in the official tables as relatively unimportant though statistically significant sources of illegal immigration).

The effect of the large inflow of Latin-American illegal immigrants is already visible in many parts of the U.S., especially in the south. The growth of virtually bilingual English-Spanish areas is being recorded by several academics, and the effect of the relaxation of the earlier pressure on newcomers to learn English is a matter for earnest speculation.

According to the Domestic Council's report, two-thirds of all immigrants, from all source countries, settle in one of six states—New York, California, *New Jersey, Illinois, Texas and* Massachusetts. Taken together they already account for about a third of the already low growth in the U.S. population, and the proportion is increasing. In some local areas — Los Angeles, *for* example — the familiar complaints that they benefit from free medical care and welfare services without contributing to taxes is being heard. At *the top level, in* Washington, the familiar response—that by and large they contribute more to the economy than they take out—is forthcoming in more than one voluminous report. But these "English arguments" subside against the major economic force, which seems to be a perpetual magnet for cheap labour.

And it is on this level that world patterns of labour migration ought to be studied. The approach of our own politicians is Ruritanian. What all developed countries inevitably face is the massed pressure of the poor outside the city walls. For the *U.S.,* with its *imperial* Roman demand for workers — *although not necessarily citizens* — from every part of the world that falls within its sphere of influence, the pressure is so strong that its population mix may over time be radically changed. In Britain this would be regarded as a catastrophe. In America, itself the product of a melting pot, it is not necessarily anything of the kind.

Proper policy

The question is, what is the proper policy for Western Europe and the developed world as a whole? The Continental guest-workers, and our own *initially welcome immigrants,* constitute evidence of a passably open approach; now we in Britain are familiar enough with the closed approach. The answer to the question, "which is the right one?" is not a *simple matter of counting a few* thousand male fiancés, and throwing up our hands in horror. It is a complicated judgment, requiring a sense of *the proper place of the West in* the global economy. But we have long *since* stopped growing political leaders who could operate on that elevated plane.

Joe Rogaly

Letters to the Editor

Unknown seas

From Elizabeth Young.

Sir,—Your shipping correspondent, Ian Hargreaves', article on the Amoco Cadiz wreck (April 24), comprehensive though it was, left some of the problems unmentioned. It is not only that a mere 25 per cent. of U.K. coastal waters have been surveyed to modern standards, but that only *30 per cent. of the designated* shipping lanes have been so surveyed, a fact disclosed in the House of Lords on April 6 in answer to a series of questions *on the Hydrographer from* Lord Kennet.

Of the 14,000 known wrecks, the depth of some 12,500 and the exact location of 11,000 is not known. There may anyway be some two or three times as many wrecks altogether unknown. Unknown *banks and pinnacles* continue to be found within, or on the edge of, heavily used shipping lanes. And of course, as the carriage of dangerous cargoes *(LNG, nuclear)* increases in volume and frequency, the risks increase too.

The Western oil industry did indeed devise more "realistic" insurance schemes after Torrey Canyon, but not all oil carriers participate in the scheme; I *gather the French Government,* which spent well over £10m. last year clearing oil from the Bohlen, a sunken East German tanker, is likely to recover a mere 3 or 5 per cent. of this sum from the relevant East German concern.

Meanwhile the oil installations in the *North Sea are only entitled* to a safety zone of 500 metres, which might well not embrace some of their well-heads on the sea-bed. Nor, apparently, is any low level air control system at present legitimate over the oil-fields, where the combination of *many hundreds of* helicopter movements each week and low-flying Nimrods on "Tapestry" duties, and bad weather, appears to be potentially lethal.

Add a few Soviet naval exercises and weapon tests, and the inadequacy of the present state *of affairs appears quite striking.* What is even more remarkable is that the opportunities to improve them, presented by the UN Law of the Sea Conference, have not yet been taken. The shipping industry is likely to find itself in a veritable cats' cradle of un-co-ordinated coastal state rules and regulations, unless it can persuade the Government to promote a more rational system of jurisdiction at UNCLOS III.

Elizabeth Young.
100, Bayswater Road, W.2.

South Africa's grand design

From the Press Attaché, South African Embassy

Sir,—I feel that some comment is necessary regarding Mr. Quentin Peel's article (April 26) on the South African Prime Minister's so-called "grand design," as some of Mr. Peel's statements rest on shaky foundations.

The fact that Mr. Peel is able in his article to point to various manifestations of radical urban black and unco-operative homeland leaders' opposition to the policies of the South African Government, indicates a clear removal of paternalism in favour of endogenous political development.

South Africa is more than any other country, a microcosm of the world's ethnic problems and it is therefore self-evident that it should devote relatively more attention to the ethnic factor in formulating its socio-political development programmes. This fortunately is accomplished through constant dialogue between the various race groups.

Although Mr. Peel mentioned the fact that two separate commissions are currently looking at existing labour legislation, he neglected to mention that the frames of reference to the one *multi-racial commission is to* inquire into 12 Acts affecting labour relations passed since 1939.

The innuendo of clear limita*tions of Government policies* in favour of proposed changes in the law to allow blacks to take out mortgages to buy their own homes in townships, is regretted. The system of 99-year leasehold in Britain is a common phenomenon and does not impede any rights of British citizens, so why cast doubts on the application of the same system in South Africa.

As to Mr. Peel's conclusion that *if Chief Matanzima's frustra*tion proves contagious, the timetable for homelands to become independent could slip drastically, he might find that Chief *Mphephu, the Chief Minister of* Venda, will not go along with his statement as he tabled a motion in the Venda Legislative Assembly last month asking the South African Government to grant the homeland independence "probably in July next year."

South Africa has never professed to being perfect and honest criticism is to be expected. One does, however, *feel that Mr. Peel's approach* does little to contribute to a better understanding of another country's problems or politics.

P. A. Swanepoel,
South African Embassy,
Trafalgar Square, W.C.2.

Accounting for inflation

From Mr. G. Thompson

Sir,—I was pleased to read Professor Baxter's article (April 12) re-opening the case for constant purchasing power accounting. The basic principles of *current cost accounting* have gone unquestioned for too long.

The basic concept which underlies all of the problems of inflation accounting, and indeed of accounting as a whole, is that of value. Profit is a secondary notion wholly derived from *changes in value with time.* It is commonly recognised that value is hard to measure and we must rely to some extent on subjective judgment. It is less often recognised that it is also specific to a use or a user and in no way intrinsic. Different uses give *different values. Thus* value and hence profit to the equity holder may be different to value and profit to the business itself as an on-going entity. It is here that the proponents of CPP accounting and CCA diverge without, it seems, being fully aware of the true basis of their differences.

I happen to be employed in a process industry in which the sophistication of plant is increasing rapidly as is the replacement capital cost per unit output *of a relatively unchanging final* product. In such a situation CCA has a very definite relevance to the company's *management* and the long-term survival of the business. It may be prudent in view of the recent state of the capital market for *directors to retain and reinvest* sufficient funds for these purposes rather than give shareholders an option *on this matter.* Indeed, the sums involved may not be profits from the point of view of the company's managers; they are, however, still profits *from the point of view of the* equity holder.

Inflation is a separate problem. Indeed, I believe it is a red herring in these arguments. The logic of conventional accounting in periods free from inflation is *well understood.* The CCA approach adopted by the Sandilands committee suggests that in an industry such as my own (and it is not at all atypical) in which relative values are changing a different basis of accounting is necessary with or without inflation.

Dealing with inflation alone is actually relatively simple. I am an engineer by training and am well aware of the problems that *the technology would have met* were there not a reliable and well understood parellel development in metrology. Accounting has for too long tried to pretend that it had no comparable problem. The statisticians have through various indices tried to provide a basic unit of financial measurement that suffers from fewer vagaries than units of national currency. Money is fundamentally a general unit of *exchange and thus I suggest the* only worthwhile index for these purposes is a general index of *purchasing power.* Furthermore, the only valid purchasing power in this context is final consumer purchasing power—all others are merely intermediate transfer prices. Whether or not the Retail Price Index gives a correct balance is a matter for *sociologists and statisticians.* It is, however, the best we have currently and a correction of all items as suggested in the original CPP proposals deals adequately with inflation.

I believe that by far the most important move which could and *should be undertaken* immediately is to replace traditional accounts based on historical costs with CPP corrected accounts based on a constant value of money exactly as was originally proposed. Having done this, we might then issue as an appendix to these accounts a number of corrections similar to those suggested in the Hyde proposals. These would, of course, be relatively small as inflation would already have been dealt with in the main accounts. Furthermore, as they would only be additional information the company's directors could be given reasonable discretion to decide the method of calculating the adjustments providing that they explain these *methods in an appropriate note.* Such a system would meet all the current requirements without losing the familiarity and objectivity of traditional accounting practices.

Graham Thompson.
158 Pennsylvania Road,
Exeter, Devon.

A question of conciliation

From the Chairman, Advisory, Conciliation and Arbitration Service

Sir,—In his letter of April 27, Mr. Lyons, general secretary of the Engineers' and Managers' Association, said that it was misleading of your industrial reporter, Alan Pike, to say that senior Advisory, Conciliation and Arbitration Service officials satisfied themselves that there was no possibility of persuading EMA/the Shipbuilding and Allied Industries Management Association and the Confederation of Shipbuilding and Engineering Unions to reach a mutually acceptable settlement. It is your industrial correspondent who was accurate.

I have met representatives both of the CSEU and EMA/SAIMA. *It was clear that the* views they expressed were irreconcilable. To put it briefly, EMA/SAIMA believe that they *should be granted recognition* for collective bargaining purposes nationally in shipbuilding because of their membership among management grades. The CSEU *believes that EMA/SAIMA* should not be granted such recognition because they are opposed to the introduction of any more unions into the industry and because *collective* bargaining arrangements already exist. The CSEU left me in no doubt whatever that its opposition to the EMA/SAIMA claim is both resolute and uncompromising. Effective conciliation can take place only when *the parties to a dispute feel the* need, despite their differences, to search for agreement.

Moreover the problem is not one of lack of understanding of *the other's point of view. Both* sides seemed to me to be fully aware of the fundamental arguments.

These discussions were reported to the ACAS Council who decided at their last meeting that we should write to British *Shipbuilders* stating that we have not been able to identify any basis for agreement.

J. E. Mortimer,
Cleland House, Page Street, S.W.1.

To-day's rotten boroughs

From Mr. A. Holland.

Sir,—Your Lobby Editor, Richard Evans, in describing (April 26) the Epsom and Ewell constituency with its electorate of more than 80,000 as little short of a rotton borough, shows a remarkable lack of early political history.

The term "*Rotten Borough,*" of which Old Sarum was the most famous example, dates back to the early 19th century and originally referred to those seats with literally a mere handful of electors.

To-day's rotten boroughs are those in the city centres and in Scotland, mostly Labour held, which have electorates of well under 40,000 *against a national* average of about 65,000.

Anthony D. R. Holland.
7/8, Warwick Street, W.1.

The price of land

From Mr. D. Morris.

Sir,—In his letter of April 21, Mr. Gimson quite rightly points out that as house prices rise, land prices are pulled up. In the long run, however, a shortage of land leads *to a shortage of* new houses and this can cause house prices to rise. It's a chicken-and-egg situation, but in my opinion as property is a long-*term investment and a shortage* of building land over a long period will cause a shortage of houses for sale and, therefore, an increase in house prices such *as we see at the present time.*

In a free market increased land prices would attract more land on to the market, more houses would be built and house prices would stabilise, but the U.K. building land market is not free, hence my plea for positive planning and the abolition or a substantial reduction in development land tax.

Mr. Gimson rightly points out that new houses only repre*sent 15 per cent. to 20 per cent.* of house sales, but it is a very important 15 per cent. to 20 per cent. New houses are vacant and ready to be occupied, but far too many secondhand houses are only available with vacant possession as and when the owner *has found somewhere else to go.*

David C. Morris,
Allsop and Co.
21 Soho Square, W.1.

To-day's Events

GENERAL

EEC Foreign Ministers meet, Brussels.

Mr. Eric Varley, Industry Secretary, addresses *Amalgamated* Union of Engineering Workers (foundry section) conference, Morecambe.

Mrs. Margaret Thatcher, Opposition leader, ends visit to Iran.

Marshal of the RAF Sir Neil Cameron, U.K. Chief of Defence *Staff, continues visit to China.*

Mr. Forbes Burnham, Prime Minister of Guyana, arrives in *London for official visit.*

Law of the Sea Conference continues, Geneva.

Scottish Regional Council elections.

Amalgamated Union of Engineering Workers (engineering section) conference continues, Worthing.

Association of Scientific, Technical and Managerial Staffs meets Automobile Association management on negotiating rights.

Industrial tribunal expected to decide whether Mr. Richard Elvidge, a trainee chef at Claridge's, was unfairly dismissed.

Sir Peter Vanneck, Lord Mayor *of London, receives Mr. R. K.* Gupta, Mayor of Delhi, and Mrs. Gupta, at Mansion House, E.C.4.

British Red Cross Society's art exhibition opens, Royal Exchange, E.C.3.

International Cleaning and *Maintenance Exhibition* opens, National Exhibition Centre, Birmingham (until May 5).

High Fidelity Exhibition opens, Cunard International Hotel, W.6

PARLIAMENTARY BUSINESS

House of Commons: Motion to refer to the Committee of *Privileges* the publication of proceedings of the House. Debate on enlargement of the European *Economic Community. Motion on* EEC document on Commercial Agents.

House of Lords: Debates on family support and an perinatal mortality.

COMPANY RESULTS

British Home Stores (full year). Laing (John) (full year).

COMPANY MEETINGS

See *Week's Financial Diary* on page 8.

OPERA

Royal Opera perform Othello, Covent Garden, W.C.2, 7 p.m.

MUSIC

Lew London Consort, director Philip Picket, in 15th century German and Austrian music, Queen Elizabeth Hall, S.E.1, 7.45 p.m.

SPORT

Soccer: European under-21 championships, *England v. Yugoslavia,* Manchester. Tennis: Paddington tournament.

COMPANY NEWS

Laird winning significant orders

SIGNIFICANT ORDERS have already been won in the current year in all divisions of Laird Group other than in the metal industries sector, says Sir Ian Morrow, the chairman, and while demand for steel continues at a low level, elsewhere the group's manufacturing capacity is fully occupied and currently there is no shortage of opportunities.

Members are told in his annual statement that the group has adequate financial resources to back further development and these resources will be enhanced in due course by the receipt of nationalisation compensation.

As reported March 28, pre-tax profit advanced from £8.06m. to £9.09m. for 1977, on turnover of £119.24m. (£110.87m.). Stated earnings are 15.79p (14.2p) per 25p share and the dividend totals 2.937p (2.63p) net. A one-for-ten scrip issue is proposed.

On a CCA basis, taxable profit was reduced to £6.85m., after adjustments for depreciation of £1.92m., cost of sales £0.9m., less gearing of £0.58m.

Net cash balances decreased by £0.26m. (£2.65m.) at the year end.

A divisional breakdown of turnover and profit shows (in £000's): metal industries £33,681, (£31,583) and £241 (£141), transport engineering £26,778 (£25,716) and £3,61 (£2,737), motor components and other engineering £48,945 (£43,608) and £5,720 (£4,792), and shiprepairing £9,837 (£9,967) and £628 loss (£591 profit).

A geographical analysis shows (in £000's): U.K. turnover £94,263 (£90,749) and profit £5,263 (£5,380); EEC, excluding U.K., £24,978 (£20,125) and £3,831 (£2,681).

The chairman reports that the metal industries division managed to remain profitable despite the international steel recession and heavy competition from imports. At the same time, the transport engineering sector increased profits by over 37 per cent. and motor components and other engineering improved by 19 per cent.

In the shiprepairing division, Western Shiprepairers, following its losses in 1976, returned a further deficit of £0.8m. in 1977. Exhaustive efforts were made to improve the position, states Sir Ian, but the recession in oil tanker repair work made it impossible to restore profitability.

As a result arrangements are now in hand to place the Western shiprepair yard on a care and maintenance basis. However, in their report, the auditors say the financial effects of this decision are uncertain, particularly in relation to fixed assets, which have been included in the group accounts on a going concern basis at an amount of £2,149,000.

The rest of the shiprepairing division was profitable in 1977 and is expected to remain so in 1978, adds the chairman.

Mr. Robert Atkinson, the chairman, tells shareholders in his annual statement.

As reported on March 31 pre-tax profits for 1977 rose from £2.39m. to £2.51m. and the dividend is increased from 4.29p to 5.28p. On a CCA basis adjusted pre-tax profit is £1.89m., after depreciation £0.35m., cost of sales adjustment £0.87m. plus a gearing adjustment of £0.6m.

Orders in hand at the end of 1977 were £8.7m., Mr. Atkinson says, showing a significant increase over 1976. Although the group's situation has improved, he says there is still no real sign that recovery from the world economic recession is imminent.

There was an increase in net liquid funds of £270,000 compared with a decrease of £2.69m.

Meeting, Sheffield, on May 25 at 12.30 p.m.

Confidence in Websters' strength

The strength of Websters Publications over the last few years augurs well for the growth in the future for which the group plans for, says Mr. Peter Lane, the chairman, in his annual statement.

As reported on April 14 the group turned in taxable profits of £0.91m. for the 15 months to end-1977 compared with £0.56m. for the previous year and the dividend is 1.675385p for the period against 1.2p.

Subsidiary Bookwise achieved a further increase in its share of the market and is well placed to take advantage of the expected improvement in consumer spending on books during the current year. The group's bookshops showed encouraging growth in turnover and profits during the period, the chairman adds.

In the publications and printing division Mr. Lane says the group is beginning to feel the advantages of the substantial expenditure on equipment at the Chesham Press. And he adds that Websters has further improved its competence with regard to the group's various publications.

There was an increase in working capital at the end of the period of £725,000 compared with a decrease of £29,000 for the 1975-76 year.

Meeting at 77, London Wall, E.C., on May 23 at noon.

Aurora set

In 1978, Aurora Holdings, general and precision engineering concern, expects to show continued progress and further asset improvement in spite of the political, economic and trading uncertainties the group foresees.

Hawkins and Tipson on target

TURNOVER FOR the six months to February 28, 1978, of Hawkins and Tipson expanded from £8.17m. to £8.66m. but pre-tax profits were virtually unchanged at £522,000 against £520,000 before higher tax of £183,000 compared with £56,000.

The directors state that the forecast of annual profits at least equal to last year's £1.23m. should be attained if trade continues as at present and exports hold up through the summer.

No provision is made in the periods for U.K. deferred tax by reason of allowances for fixed assets or stock increases where it is considered that the reduction in liability will continue for the foreseeable future.

The interim dividend is held at 1p net per 25p share. Last year's final was 2.993p.

The group manufactures ropes, wire products, furniture, etc.

Beauford encouraged so far

IN HIS annual statement Mr. G. Crawford, the chairman of Beauford Group says that the directors are budgeting for an increase in both turnover and profits for 1978 and results so far achieved lead him to believe that the budgets will be met.

As reported on April 14 pre-tax profits rose from £433,261 to £522,261 in 1977 on turnover of £4.27m. (£4.3m.).

Net liquid funds were £9,039 lower (£340,176 higher) at the year end.

Inflation adjusted accounts show CCA pre-tax profits at £398,000 after adjustments for cost of sales £65,000; depreciation £137,000; and gearing £78,000.

All activities contributed to the improved results. The engineering companies expanded their markets, and the industries they serve now extend from steel to medical equipment. The group is thus reducing its dependence on any one industry.

During the year the group has invested £373,000 on fixed assets bringing the total spent during the last four years to not far short of £1m.

While manitaining this level of expenditure the company has been able to strengthen its balance sheet. Liquidity has been improved, net current assets have been increased and assets per share, before providing for deferred tax, but without taking into account the excess of the current value of freehold properties over their book value, at 53p compares with 43p the previous year.

Meeting, Huddersfield, on May 25 at noon.

Portals in good condition

IN HIS annual statement, Mr. John Sheffield, the chairman of Portals Holdings, says that the group is in good condition and able to cope with the difficult trading conditions that now pertain in the markets of the world.

The balance sheet is healthy, the group has liquid resources of £7.5m. to be used to strengthen the business either by internal investment or by acquisition and gearing is minimal.

The growth in water treatment and engineering profits is expected to continue in 1978 but the papermaking division will be hard pressed to maintain its profits.

The heavy capital investment programme has begun at Overton Mill but, as yet, no suitable acquisitions have been found for either the water treatment or engineering divisions.

At the year end future capital spending stood at £6.99m. (£1.05m.) with £5.99m. (£0.76m.) not contracted for.

As reported on April 14, pretax profits rose from £6.8m. to £8.68m. in 1977 on turnover of £77.37m. (£64.36m.).

More company news, Pages 31 & 33

Inflation adjusted accounts show current cost pre-tax profits of £7.43m. (£4.8m.) after a depreciation adjustment of £600,000 (same) and a cost of sales adjustment of £750,000 (£1.65m.), offset by a gearing adjustment of £100,000 (£250,000).

As at April 13 the Bank of England held 30.6 per cent. of the equity.

Meeting, Connaught Rooms WC on May 24 at 12.30 p.m.

Bronx hit by steel reduction

Order intake level at Bronx Engineering Holdings for 1978 is not making the progress that there has been in the past few years, says Mr. G. B. Crosthwaite, the chairman, in his annual statement. And the home market, he says, will be affected by the reduction in volume of orders expected from the British Steel Corporation. Thus he anticipates that group profit will fall considerably below that achieved in the 1976-77 year.

As reported on March 30 pre-tax profits for the year to November 30, 1977 show little change at £790,281 against £784,707 after a first-half rise from £272,000 to £366,000. The dividend is lifted from 1.424p to 1.572p net per 10p share.

A statement of source and application of funds shows an increase in working capital of £78,400 against £588,200.

Meeting, Birmingham on May 24 at noon.

CADBURY/PETER PAUL

Peter Paul Inc. shareholders have approved the merger with Cadbury Schweppes at a special meeting.

Under the agreement, Peter Paul holders received $27.5 cash for each share held.

BIDS AND DEALS

Johnson accepts new Hepworth terms

The Board of H. and R. Johnson-Richards Tiles has now agreed to accept an increased offer from Hepworth Ceramic Tiles. The cash element of the terms has been lifted from 39p to 58p. The full terms are now one Ordinary share of Hepworth plus 58p cash for each share of Johnson, and put a value of 136½p on each Johnson share, against 121p in the market last Friday.

The increased offer has been made following further discussions with the Board of Johnson and its financial advisers, S. G. Warburg. Johnson has informed Hepworth that the estimate of profits before tax for the year ended March 31, 1978, is some £5.5m., a material increase on the previous indication. The profit is after taking account of losses of around £0.6m. incurred by the U.S. subsidiary of Johnson; the Board of Johnson has informed Hepworth that further losses are not expected to arise in the year ending March 31, 1979.

The Preference offer remains at 70p per share cash. J. Henry Schroder Wagg and Co. will post the revised offer document on behalf of Hepworth as soon as possible.

● comment

The agreement of the Johnson-Richards Board has cost Hepworth an extra £4.1m. in cash. In new talks which began last Friday J-R disclosed the profit estimate of £5.5m. pre-tax which is said to be "materially higher" than the confidential figure which had been used in previous discussions. Both sides will have been aware of the potential influence of the various large shareholders, unrepresented in the talks, who have expressed an interest in any price over 125p: London Brick with 9.8 per cent. has been prominent here, within a 25 per cent. block. Certainly the new terms produce an advance to well above 125p, against the current value of 117½p represented by the original proposals. The exit p/e, fully taxed, appears to be of the order of 12½. Meanwhile Hepworth is increasing its equity by 17 per cent. in exchange for an increase in attributable profits of perhaps 12 per cent.

GRANDER ASSOCS. SELLS RADIO UNIT TO DECCA

Grander Associates has agreed to sell its HF Radio Products to Decca Communications.

The transaction includes not only design rights and technical know-how, but also tooling and inventory of finished equipment, spares and work in progress.

The HF radio business has had no material effect on sales or earnings over the past several years, it is stated.

BOC BOOSTS AIRCO HOLDING

BOC International reports that some 4,849,000 shares of common stock of Airco Incorporated and about $US6,555,000-worth of Airco Convertible Debentures, the equivalent of about 210,000 shares, had been tendered to its subsidiary BOC Financial Corporation, and purchased, increasing BOC's ownership to about 93 per cent. of Airco.

The directors of BOC have extended the tender offer for one week to 5 p.m. New York time on May 5. Debentures have been previously called for redemption on May 4 and unless tendered before then or converted will mature on May 4.

Letraset forecasting over £7m. profit

Letraset International, the transfer printing company, will show pre-tax profits in excess of £7m. for the year ended April 30. The forecast is made by the Board in the offer document for toy company J. and L. Randall.

The document detailing the agreed bid, which places a value of £13m. on Randall, also shows substantial share sales by Letraset directors during the past year. Mr. W. Fieldhouse, the chairman, has disposed of 126,000 shares, reducing his holding to 100,000 shares.

Mr. J. G. Davies, son of the founder of Letraset, has reduced his holding by 192,000 shares to 150,032 shares. Mr. J. G. Soper has disposed of 133,000 shares, which cuts his holding to 216,385 shares.

Mr. B. J. Whelan has reduced his holding by 34,900 shares to 17,248.

The sales took place between April 25, 1977 and April 25, 1978. Although no reasons are given in the document each director is understood to have made his sale for personal reasons.

The document also says that Randall is a co-defendant in an action brought in New York for damages for personal injuries allegedly suffered by a user of one of its toy products. "Although the action involves a claim for $2.5m., it is understood that the claimants in the action have approached the insurers of one of the other co-defendants with a view to settling the action for a sum in the region of $150,000," says the document.

It adds: "The same insurers have approached Randall's lawyers in New York on behalf of such co-defendant with a suggestion that a joint settlement be negotiated with the claimants. Randall is not accepting any liability in this matter." It is understood that Randall is fully covered by a products liability insurance contract.

Letraset says it intends to maintain the current business of Randall, but that there are certain non-trading assets which are surplus to needs. These may be redeployed in financing the profitable expansion of the enlarged group. Easily realisable assets include cash and short-term deposits of £3.92m.; shares with a market value of £3.71m. at December 31, 1977; and freehold properties with a book value of £1m., but a market value nearer £4m.

As a result of the acquisition, Letraset's net tangible assets attributable to Ordinary holders will rise from £10.1m. to £16.55m.

Mr. J. Randall, chairman of the Randall group, says in his letter recommending acceptance of the bid, that to ensure continuity of management all the Randall directors, with the exception of Mr. S. A. G. Moules, who retires in July this year, are entering into service contracts with Letraset, and will continue to manage the trading operations.

On the dividend front Letraset intends to declare a second interim in lieu of a final, for the year ending April 30 of 4.4979p net per share. This will be paid in early October and together with the interim already paid of 0.897p the total for the year comes out at 5.3949p net, an increase of around 90.8 per cent.

LOCAL AUTHORITY BOND TABLE

Authority (telephone number in parentheses)	Annual gross interest	Interest payable	Minimum sum	Life of bond
	%		£	Year
Barking (01-592 4500)	9¾	½-year	5,000	3
Barnsley Metro. (0226 203232)	10	½-year	250	4-7
Elmbridge (09322/98/28844)	10½	½-year	1,000	4-7
Knowsley (051 5486555)	10½	½-year	1,000	5-7
Redbridge (01-478 3020)	10½	½-year	200	5-7
Rushcliffe (0602 811511)	9½	½-year	500	3
Southend (0702 49451)	10	½-year	250	5-6
Thurrock (0375 5122)	10¼	½-year	300	4
Thurrock (0375 5122)	10½	½-year	300	5-8
Wrekin (0952 505051)	10¾	yearly	1,000	5

FINANCE FOR INDUSTRY TERM DEPOSITS

Deposits of £1,000-£25,000 accepted for fixed terms of 3-10 years. Interest paid gross, half-yearly. Rates for deposits received not later than 5.5.78.

Terms (years)	3	4	5	6	7	8	9	10
Interest %	9½	10	10¼	10¾	11	11¼	11½	11¾

Rates for larger amounts on request. Deposits to and further information from The Chief Cashier, Finance for Industry Limited, 91 Waterloo Road, London SE1 8XP (01-928 7822, Ext. 177). Cheques payable to "Bank of England, a/c FFI." FFI is the holding company for ICFC and FCI.

APCM chief sees brighter future

IN HIS annual statement, Mr. J. A. Binny, the chairman of Associated Portland Cement Manufacturers says that the future of the company is brighter than for some years, provided it is allowed to earn a reasonable return on its investment.

The investigation by the Price Commission will find the group as efficient as any in Britain "and we trust we will not be prevented from maintaining our prices at the level necessary to ensure our continued prosperity and growth."

As reported on April 14, pre-tax profits finished 1977 marginally higher at £47.9m. (£45.4m.) after slipping from £23.5m. to £22.5m. in the first half.

Mr. Binny says this has been a difficult period for the company but the directors are beginning to see an improvement in prospects and anticipate an increase in cement demand in 1978 for the first time in four years.

The group has recently replaced a large part of its lorry fleet and is considering replacing some of its older U.K. plant. The directors plan to spend £35m. on capital projects in 1978.

In 1977 shipments of cement and clinker were nearly doubled and the directors are confident of shipping more in 1978. They are also looking for an increase in export prices. Anticipated further growth overseas will mean a larger proportion of total earnings is likely to come from investments and consultancy activities overseas.

BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available whether dividends concerned are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

TO-DAY

Interims:—A. Arenson.

Finals:—Boustead, British Home Stores, Clement Clarke, Davies and Newman, First Castle Securities, John Laing, Roberts Adlard, Scottish Northern Investment Trust, Vernon Fashion, Wadham Stringer.

FUTURE DATES

Interims:	
Moss Engineering	May
Pretoria Portland Cement	May
Transvaal Cons. Land and Exln.	May
Westward Television	May
Finals:	
Allifund	May
Feedex	May
Guardian Investment Trust	May
Hall (Matthew)	May
Henderson (P. C.)	May
Metal Box	June
Mettoy	May
Sellncourt	May
Walker (C. and W.)	May

FT Share service

The following securities have been added to the Share Information Service appearing in the Financial Times:—

Baxter Travenol Laboratories Inc (Section: Industrials).

Colmore Investments (Section Motors-Garages).

R. H. Cole takes steps to improve potential

In his annual statement Mr. Peter Cole, chairman of R. H. Cole tells members that during 1978 certain subsidiary activities are being restructured to strengthen their product lines and provide greater potential for expansion. It is, he says, the directors' policy to maintain a constant search for new activities, compatible with the group's philosophy of providing specialist products and services.

Although results for the year will initially be affected by the cost of the move of the group's thermoplastic activities to Milton Keynes, the benefits of improved productivity will become increasingly apparent as the year progresses.

The group's cash resources are being maintained at a satisfactory level and will be sufficient to finance the expansion of the business anticipated during the year. Proceeds of the properties being vacated by Cole Plastics and East Anglia Plastics will be applied to reducing secured borrowings.

As already reported, turnover for 1977 amounted to £23.56m. (£18.91m.) and taxable profits improved from £0.9m. to £1.3m. The value of goods exported from the U.K. totalled £1.98m.

On the results the chairman says as anticipated the high level of performance achieved in the first six months was not maintained and the remainder of the year saw an easing in demand with margins coming under pressure.

This pattern of business was generally experienced by the chemical industry in 1977 and he expects similar fluctuations to occur in 1978. However he remains confident that the group is now well placed to overcome the present uncertainties and to play an increasingly significant role in the many industries it serves.

Monsanto holds 22.4 per cent of the company and Norwich Union Life Assurance Society 5 per cent. Meeting, Winchester House, E.C., on May 23 at noon.

MIDLAND BANK STATISTICS

Statistics compiled by Midland Bank show that the amount of "new money" raised in the U.K. by the issue of marketable securities in April was £69.7m (£133.6m.).

Pending dividends timetable

The dates when some of the more important company dividend [st]atements may be expected in the next few weeks are given in the [fol]lowing table. Dates shown are those of last year's announcements, [ex]cept where the forthcoming Board meetings (indicated thus*) have [be]en officially published. It should be emphasised that the dividends [to] be declared will not necessarily be at the amounts or rates per [ce]nt. shown in the column headed "Announcement last year." [Pr]eliminary profit figures usually accompany final dividend [an]nouncements.

	Date	Announcement last year
[A]kroyd Smithers	May 12	Int. 5
[Al]lied Irish Banks	May 10	Final 2.9375
[A]nglo American Corpn. Grp.	June 9	Divs. due
[A]nglo Transvaal Cons. Grp.	June 8	Finals due
[As]soc. Engng.	May 26	Int. 1.37
[A]verys	May 9	Final 3.47583
[A]von Rubber	May 24	Int. 4
[B]ank of Ireland	May 9	Final 11p
[B]aw Charlngtn	May 26	Int. 1.631533
[B]eecham	May 19	Final 3.2736
[B]erisford (S. and W.)	May 23	Int. 3.5
[B]OC Int.	May 25	Int. 1.34
[B]oots	May 18	Sec. int. 1.7081
[B]orthwick (Thos.)	May 18	Int. 2.4
[B]rixton Estate	May 8	Final 0.6517
[B]rown Shipley	June 9	Final 4.79
[B]urton Grp.	May 12	Int. 0.6
[C]ater Ryder	May 16	Final 12.753
[C]harter Consolidated	June 6	Final 4.68242
[C]harterhse. Grp	May 31	Int. 1.18
[C]oalite and Chemical	May 19	Final 6.3896
[C]oats Patons	May 19	Final 1.8778
[C]ostain (R.)	May 10	Sec. int. 1.3967
[C]ourtaulds	May 26	Final 4.549
[D]ebenhams	May 19	Final 3.3697
[D]e La Rue	June 9	Final 6.4 fcst.
[E]mport	May 18	Final 2.39153
[E]lectronic Rentals	June 9	Final 1.4515
[E]ver Ready	May 19	Sec. int. 2.671
[F]inlay (Jas.)	June 8	Sec. int. 3.11
[G]old Fields of SA Group	June 8	Divs. due
[F]rench Kier	May 16	Final 8.5
[F]urness Withy	May 17	Sec. int. 4.391
[G]en. Min. Grp	June 1	Divs. due
[G]rand Met.	June 2	Int. 1.6
[G]uthrie Corpn.	June 9	Final 6
[H]eath (C. E.)	May 17	Final 9.1
[H]ickson Welch	June 2	Int. 3.63§
[H]ill Samuel	May 31	Final 2.7656
[IC]L	May 26	Int. 2.6
[Jo]'burg Consolidated	June 9	Ints. due
[K] Shoes	May 27	Int. 6.77
Land Investors	May 18	Int. 0.4
*Laporte	May 3	Final 3.23931
Lloyds and Scottish	May 12	Int. 1.54
London and Northern	May 26	Final 2
*Mallinson Denny	May 9	Final 1.5
*Marks and Spencer	May 3	Final 2.48
*Marley	May 25	Int. 1
MEPC	June 8	Int. nil
*Metal Box	June 5	Final 7.46
*Mettoy	May 4	Final 0.95
Minster Assets	June 2	Final 1.745
*Mothercare	May 4	Final 3.414
*Natl. and Comcl. Bank	May 4	Int. 1.25
Northn. Foods	May 31	Int. 1
Pegler Hattersley	June 8	Final 4.031
*Philips Lamps	May 9	Final Fls.1.10
Pilkington Bros.	June 10	Sec. int. due
*P & O	May 3	Final 3.35742
Press (Wm.)	May 26	Final 0.75
Prop. Hay's Wf.	June 2	Int. 1.422
*Ransome Hffmn. Pollard	May 24	Int. 1.44
RHM	May 18	Int. 1.32
Readicut Int.	May 18	Final 0.9977
Reed Int.	May 31	Final 7.0445
*Sainsbury (J.)	May 3	Final 3.57
Samuel (H.)	May 24	Sec. int. 6.4
*Sears	May 4	Final 3.31
*Serck	May 4	Int. 2
600 Group	June 9	Final 2
Spillers	Apr. 27	Final 1.94025
Staflex Int.	May 20	Final 1.61
Staveley Inds.	May 12	Int. 4.4
Swan Hunter	May 24	Sec. int. 3.5
Trafalgar Hse.	May 19	Int. 2.34
Triplevest	Mar. 31	Final 1.901
UDS	May 19	Final 2.7
UKO Int.	May 31	Final 5.33
Ward (T. W.)	June 16	Int. 1.21675
Wedgwood	June 10	Final 3.7
Whitbread Inv.	May 12	Final 2.836
Wolv. and Dudley Brews.	May 31	Int. 1.7

* Board meetings intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made from reserves.

Public Works Loan Board rates

Effective from April 29

Years	Quota loans repaid by EIP†	At	at maturity§	Non-quota loans A* repaid by EIP†	At	at maturity§
[U]p to 5	10¼	10½	10¾	11⅛	11⅜	11⅝
[Ov]er 5, up to 10	10⅞	11¼	12¼	11⅝	11⅞	12⅜
[Ov]er 10, up to 15	11⅞	12½	12⅞	12⅜	12½	13¼
[Ov]er 15, up to 25	12½	12¾	12⅞	13	13½	13½
[Ov]er 25	12⅝	12⅞	13	13½	13⅝	13⅝

* Non-quota loans B are 1 per cent. higher in each case than non-quota loans A. † Equal instalments of principal. ‡ Repayment by half-yearly annuity (fixed equal half-yearly payments to include principal and interest). § With half-yearly payments of interest only.

BASE LENDING RATES

A.B.N. Bank	7½%	■ Hill Samuel §	7½%
Allied Irish Banks Ltd.	7½%	C. Hoare & Co. †	7½%
American Express Bk.	7½%	Julian S. Hodge	8½%
Amro Bank	7½%	Hongkong & Shanghai	7½%
A P Bank Ltd.	7½%	Industrial Bk. of Scot.	7½%
Henry Ansbacher	7½%	Keyser Ullmann	7½%
Banco de Bilbao	7½%	Knowsley & Co. Ltd.	9 %
Bank of Credit & Cmce.	7½%	Lloyds Bank	7½%
Bank of Cyprus	7½%	London Mercantile	7½%
Bank of N.S.W.	7½%	Edward Manson & Co.	9 %
Banque Belge Ltd.	7½%	Midland Bank	7½%
Banque du Rhone	8 %	■ Samuel Montagu	7½%
Barclays Bank	7½%	■ Morgan Grenfell	7½%
Barnett Christie Ltd.	8½%	National Westminster	7½%
Bremar Holdings Ltd.	8½%	Norwich General Trust	7½%
Brit. Bank of Mid. East	7½%	P. S. Refson & Co.	7½%
■ Brown Shipley	7½%	Rossminster Accept'cs	7½%
Canada Perm'nt Trust	7½%	Royal Bk. Canada Trust	7½%
Capitol C & C Fin. Ltd.	8½%	Schlesinger Limited	7½%
Cayzer Ltd.	8 %	E. S. Schwab	9½%
Cedar Holdings	8 %	Security Trust Co. Ltd.	8½%
■ Charterhouse Japhet	7½%	Shenley Trust	9½%
Choulartons	7½%	Standard Chartered	7½%
C. E. Coates	8½%	Trade Dev. Bank	7½%
Consolidated Credits	7½%	Trustee Savings Bank	7½%
Co-operative Bank *	7½%	Twentieth Century Bk.	8½%
Corinthian Securities	6½%	United Bank of Kuwait	7½%
Credit Lyonnais	7½%	Whiteaway Laidlaw	8 %
The Cyprus Popular Bk.	7½%	Williams & Glyn's	7½%
Duncan Lawrie ¶	7½%	Yorkshire Bank	7½%
Eagil Trust	7½%		
English Transcont.	9 %		
First London Secs.	7½%		
First Nat. Fin. Corpn.	10%		
First Nat. Secs. Ltd.	9½%		
■ Antony Gibbs	7½%		
Greyhound Guaranty	7½%		
Grindlays Bank ‡	7½%		
■ Guinness Mahon	7½%		
■ Hambros Bank	7½%		

■ Members of the Accepting Houses Committee.
* 7-day deposits 4%, 1-month deposits 4½%.
† 7-day deposits on sums of £10,000 and under 4%, up to £25,000 4½% and over £25,000 5%.
‡ Call deposits over £1,000 4%.
§ Demand deposits 3%.
¶ Rate also applies to Sterling Ind. Secs.

RECENT ISSUES

EQUITIES

Issue Price p.	Amount Paid up	Latest Renunc. Date	1978 High	1978 Low	Stock	Closing Price p.	+ or −	Div.	Times Covered	Gross Yield	P/E Ratio
‡5	F.P.	26/4	136	118	Sage Holidays	136	+3	b6.76	2.2	7.5	9.2

FIXED INTEREST STOCKS

Issue Price £	Amount Paid up	Latest Renunc. Date	1978 High	1978 Low	Stock	Closing Price £	+ or −
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

"RIGHTS" OFFERS

Issue Price p.	Amount Paid up	Latest Renunc. Date	1978 High	1978 Low	Stock	Closing Price p.	+ or −
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Renunciation date usually last day for dealing free of stamp duty. b Figures based on prospectus estimate. a Assumed dividend and yield. u Forecast dividend: cover based on previous year's earnings. r Dividend and yield based on prospectus or other official estimates for 1979. q Gross. T Figures assumed. † Cover allows for conversion of shares not now ranking for dividend or ranking only for restricted dividends. § Placing price to public. pt Pence unless otherwise indicated. ¶ Issued by tender. ‖ Offered to holders of Ordinary shares as a "rights." ** Rights by way of capitalisation. §§ Minimum tender price. ‡‡ Reintroduced. ¶¶ Issued in connection with reorganisation, merger or take-over. ‖‖ Introduction. □ Issued to former Preference holders. ■ Allotment letters (or fully-paid). ● Provisional or partly-paid allotment letters. ★ With warrants.

● NEWS ANALYSIS—ALCAN CONVERSION

Slice of the action for British holders

BY JAMES BARTHOLOMEW

To-day is the first time this year on which Alcan Aluminium (U.K.) convertible loan stock holders can give notice that they want to switch into Ordinary shares.

Most of them will certainly do so because Alcan announced a substantial dividend this year, and the income advantage of holding the Ordinary shares is now clear cut.

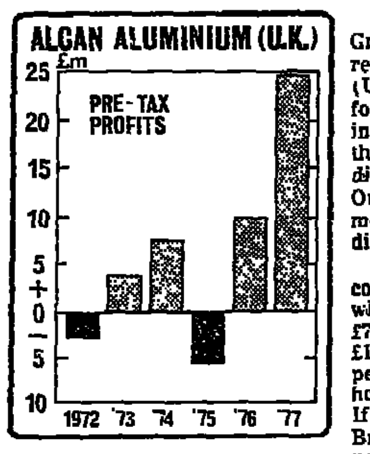
At the end of this month, the conversion will take place and a Stock Exchange listing will almost certainly follow. For the first time the British public will be able to invest sizeable amounts of money directly in a U.K. aluminium company.

Alcan Aluminium (U.K.) is a subsidiary of the Canadian company, one of the two giants of the aluminium industry along with Alcoa. The U.K. subsidiary issued a 9 per cent. Convertible Unsecured Loan Stock in 1969 to help finance a new smelter at a time when the British Government was keenly subsidising import substitution programmes. Substantial grants were offered to companies willing to set up aluminium smelters and the three major smelters currently operating in the U.K. are the direct result.

British Aluminium (owned by Tube Investments and Reynolds Metals of America) has one at Invergordon; Kaiser Aluminium in partnership with Rio-Tinto-Zinc has another at Anglesea and the third, at Lynemouth in Northumberland belongs to Alcan Aluminium (U.K.).

Alcan (U.K.) also has important aluminium semi-fabricating interests, the largest of any U.K. company, and less significant downstream products such as aluminium windows and foil wrapping for kitchen use.

Aluminium is a cyclical industry, as Alcan's profit table shows. Worldwide demand has been growing at about 8 per cent. per annum over the past 15 years but the majors have not benefited because capacity has increased even faster. Then in 1975 the downturn was so severe that major companies decided to rein in capital investment and margins recovered.



The president of Kaiser Aluminum and Chemical in America predicted last week that world capacity will increase at only 3 per cent. per annum over the next four years. So although the annual growth in demand is probably now down to about 5 per cent. the background for supply and demand looks healthy in the medium term.

At the moment the North American aluminium industry is booming, with Alcan's Canadian parent producing a 69 per cent. rise in first quarter profits. In the U.K., trading has been much less buoyant and prices have fallen behind those on the American continent.

Alcan (U.K.) has predicted "disappointing" profits in the six months to June but the British market has bottomed out. The second half should see American demand spilling over to Europe so that Alcan (U.K.) profits for the full year may be only slightly down from the £24.3m. in 1977. And the prospects for the next few years seem more favourable than for most heavy industries.

In the circumstances, Alcan's Canadian parent was doubtless reluctant to relinquish a slice of the action to British investors. In recent years, it has been buying in the convertible regularly, and the latest balance sheet shows that only £8.5m. out of the original £12m. is still owned by the public.

But last autumn, stockbroker Grieveson Grant pertinently reminded everyone that Alcan (U.K.) had said in the prospectus for the convertible: "It is our intention that from 1975 onwards the general policy should be to distribute as dividends on the Ordinary shares 50 per cent. or more of the profits available for distribution."

Alcan has duly honoured this commitment and the loan stock, which had been down as low as £77 in 1977, closed last week at £147. Conversion now offers a 50 per cent. rise in income and most holders are expected to switch. If all of them were to do so, the British stake would become 20 per cent., or 22 per cent. if Finance Corporation for Industry also converted another loan stock.

The parent considered the possibility of making an offer to buy in the outstanding loan stock. But it decided against this, believing it politically wiser in the long term to have a substantial U.K. shareholding. Moreover a London listing will enable Alcan (U.K.) to raise funds locally to help pay for an extension to the smelter in three to five years' time.

Even after conversion, Alcan (U.K.) will be fairly highly borrowed. In the last balance-sheet borrowings of £86.4m. were supported by shareholders' funds of £63.4m. After conversion those figures would be changed to £76.4m. and £73.4m. respectively. Capital employed also includes large amounts of government grants (£14m.) and deferred tax (£29.6m.).

Despite the strong rise of the stock over the past year, the rating still does not look demanding. At £147, the effective yield on the Ordinary would be 10.2 per cent. On profits of, say, £23m. the yield would be covered 2¼ times and the p/e ratio would be 6.

So the probability is that in a few months' time the Stock Exchange will be able to welcome to its lists a major new engineering company with a market capitalisation of £66m., of which £13m. would be in U.K. hands.

MONEY MARKET

Pressure on interest rates

Another week of extreme nervousness in the London money market, and further occasional bouts of pressure on sterling, ended without any significant change in events. The underlying situation is also unchanged however, and there is little reason to suppose that the market caution about the U.K. economy will change during the current week.

Discount houses buying rates for three-month Treasury bills remained defensively above the trigger point for a change in Bank of England Minimum Lending Rate, even though MLR was unchanged at 7 per cent. at Friday's Treasury bill tender.

Nervousness about a possible rise in MLR was evident from the early part of last week, and the situation was compounded by the weakness of the pound in the foreign exchange market. The authorities generally tried to soothe market sentiment, and tended to be generous in their day-to-day management. On Tuesday some bills were bought for resale to the market at a fixed future date, and on Wednesday the Bank of England bought a small number of Treasury bills when overall credit was thought to be in slight surplus.

On Friday the assistance was probably less than enough however, even though any shortage of funds was rather surprising on the published factors influencing the supply of money.

Applications for Treasury bills were only around £595m. for £500m. bills last week, and the average rate of discount, at 6.9988 per cent. was very close to the border point for a rise in MLR. The authorities appeared to take a fairly relaxed view of the situation however, in their market management, and by the fact that a further £500m. will be on offer this Friday, even though Treasury bills remain very unattractive on a yield comparison with other paper.

Sterling received varying degrees of support from the Bank of England last week, but finished little changed at $1.8240-1.8250, a fall of 15 points on the week. Forward discounts against the dollar weakened further, with the 12-month discount widening to 4.17½ cent from 2.77½ cent.

Some of the pressure on the pound eased in the later part of the week, as the dollar fell sharply following a record U.S. trade deficit with Japan in March. But the picture tended to change again on Friday, with higher U.S. interest rates pushing up the dollar, and leading to suggestions that this could put further upward pressure on U.K. rates in the near future.

Apr. 28 1978	Sterling Certificate of deposits	Interbank	Local Authority deposits	Local Auth. negotiable bond	Finance House Deposits	Company Deposits	Discount market deposit	Treasury Bills ф	Eligible Bank Bills ф	Fine Trade Bills ф
Overnight	—	6½-12	—	—	—	7½	6-7½	—	—	—
2 days notice	—	—	7⅜	—	—	—	—	—	—	—
7 days or 7 days notice	—	7⅛-7½	7⅜-7½	—	7½-8	7⅝	6⅛-7	—	—	—
One month	7¾-7⅞	7⅝-7¾	7⅛-7⅝	8-7¾	7¾-8¼	8	6⅞	6[illegible]-6[illegible]	7⅜	8
Two months	8-7⅞	7[illegible]-8⅛	—	8⅛-7¾	7⅞-8¼	—	7	6[illegible]-7	7¾-7[illegible]	8¼
Three months	8¼-8⅛	8[illegible]-8½	8	8¼-7¾	8¼-8⅝	8½	7⅛-7¼	7-7[illegible]	8	8½
Six months	8[illegible]-8⅛	8⅝-9	8½-8¾	8¼-7⅞	8⅞-9⅛	—	—	—	8[illegible]-8⅛	9¼
Nine months	8[illegible]-8[illegible]	8[illegible]-9⅛	—	9-8½	9⅛	—	—	—	—	—
One year	9-8¾	9⅛-9⅝	9-9¼	9¼-8¾	9¾	—	—	—	—	—
Two years	—	—	10-10⅛	—	—	—	—	—	—	—

Local authorities and finance houses seven days' notice, others seven days' fixed. Long-term local authority mortgage rate nominally three years 11-11¼ per cent.; four years 11½-11¾ per cent.; five years 11¾-12 per cent. ф Bank bill rates in table are buying rates for prime paper. Buying rates for four-month bank bills 8¼-8⁹⁄₁₆ per cent.; four-month trade bills 8¾ per cent.

Approximate selling rates for one-month Treasury bills 6¹⁵⁄₁₆-6²⁷⁄₃₂ per cent.; two-month 6⅞ per cent.; and three-month 6¹⁵⁄₁₆-6³¹⁄₃₂ per cent. Approximate selling rate for one-month bank bills 7³⁄₁₆ per cent.; two-month 7½ per cent.; and three-month 7¾ per cent. One-month trade bills 7¾ per cent.; two-month 8 per cent.; and also three-month 8⅛ per cent.

Finance House Base Rates (published by the Finance Houses Association) 7½ per cent. from May 1, 1978. Clearing Bank Deposit Rates (for small sums at seven days' notice) 4 per cent. Clearing Bank Base Rate for lending 7½ per cent. Treasury Bills: Average tender rates of discount 6.9988 per cent.

GOLD MARKET

	April 28	April 27
Gold Bullion (a fine ounce) Close	$170¼-171	$170¼-171
Opening	$169¾-170¼	$169¼-170
Morning fix'g	$170.05 (£92.810)	$169.35 (£93.183)
Aftern'n fix'g	$170.25 (£93.315)	$169.90 (£93.224)
Gold Coin (domestically) Krugerrand	$175-177 (£95¾-96¾)	$175¾-177¾ (£96-97)
N'w Sov'gns	$52¾-54¾ (£29-30)	$52½-54½ (£28¾-29¾)
Old Sov'gns	$53½-54½ (£28¾-29¾)	$52½-54½ (£28¾-29¾)
Gold Coins (internat'lly) Krugerrand	$175-177 (£95¾-96¾)	$175-177 (£95½-96½)
New Sov'rgns	$52¾-54¾ (£29-30)	$52½-54½ (£28¾-29¾)
Old Sov'rgns	$52¾-54½ (£28¾-29¾)	$52½-54½ (£28¾-29¾)
$20 Eagles	$273½-276¼	$275½-276½

CURRENCY RATES

	Special Drawing Rights April 28	European Unit of Account April 28
Sterling	0.669519	n/a
U.S. dollar	1.22609	n/a
Canadian	1.38671	n/a
Austria sch	18.2473	n/a
Belgian franc		n/a
Danish krone	6.82595	6.98973
Deutsche mark	2.53473	2.56839
Dutch guilder	2.70966	2.73416
French franc	5.65475	5.70692
Italian lira	1063.02	1072.96
Japanese yen	273.295	n/a
Norway krone	6.62595	n/a
Spain peseta	99.1134	n/a
Swedish krone	5.66208	n/a
Swiss franc	2.37432	n/a

FOREIGN EXCHANGES

April 28	Bank Rates %	Market Rates Day's Spread	Close
New York	6½	1.8240-1.8325	1.8240-1.8250
Montreal	8½	2.0650-2.0775	2.0655-2.0665
Amsterdam	4	4.02-4.05	4.02½-4.05½
Brussels‡	5½	58.70-59.10	58.75-58.85
Copenhagen	9	10.29-10.35	10.29½-10.30½
Frankfurt	3	3.77-3.79	3.78-3.79
Lisbon	15	76.30-77.40	77.00-77.40
Madrid	8	147.50-148.00	147.40-147.50
Milan	11½	1,581-1,588	1,581-1,582
Oslo	7	9.86-9.90	9.85½-9.86½
Paris	9½	8.38-8.44	8.41-8.42
Stockholm	7	8.42-8.46	8.45-8.45½
Tokyo	3½	405-412	408½-410½
Vienna	5½	27.15-27.30	27.15-27.25
Zurich	1	3.51½-3.56	3.53-3.54

‡ Rates given for convertible francs. Financial franc 58.75-58.95.

EXCHANGE CROSS-RATES

April 28	Frankfurt	New York	Paris	Brussels	London	Amst'd'm	Zurich
Frankfurt	—	2.0676-90	44.83 93	6.414-474	3.775-7.5	95.62-82	106.65-94
New York	48.33 36	—	21.62-65	3.1..-105	1.8225-8240	45.15-26	51.35-46
Paris	22.34-34	4.606-618	—	14.308-342	8.4285-4485	202.58-08	237.9-238.0
Brussels *	15.57-63	32.28-53	7.00-08	—	58.22-97	14.57-62	16.50-..
London	3.78-19	1.8224-8225	8.41-42	58.75-85	—	4.02½-03½	3.53-54
Amst'dam	106.835-266	2.207-212	47.925 975	6.725-15	4.1415-85	—	114.125-175
Zurich	93.356-591	1.932-955	41.890-001	6.00-0.13	3.5294-5362	87.514-785	—

U.S. $ in Toronto U.S. $=113.97-114.02 Canadian cents
Canadian $ in New York=88.46-48 cents. U.S. $ in Milan 866.6-867.0
Sterling in Milan 1584.75-1585.75. *Rates for April 27.

EURO-CURRENCY INTEREST RATES*

April 28	Sterling	Canadian Dollar	U.S. Dollar	Dutch Guilder	Swiss franc	W. German mark
Short term	7½-7½	7-8	6⅞-7⅛	3¾-4	⅜-⅛	3⅛-3⅜
7 days notice	10-11	7-8	7-7¼	4-4¼	⅜-½	3⅛-3⅜
Month	10-10⅝	7½-7⅞	7¼-7½	4-4¼	⅝-¾	3⅛-3⅜
Three months	10-10⅝	7¾-8⅛	7⅝-7⅞	4¼-4⅝	⅞-1	3⅛-3⅜
Six months	10⅝-11	8⅛-8⅛	7⅞-8⅛	3½-3⅞	1⅛-1⅜	3¼-3⅝
One year	10½-11	8¼-8⅝	8-8¼	4⅝-4⅞	1⅛-1⅜	3⅜-3⅞

Euro-French deposit rates: two-day 8⁷⁄₁₆-8⁹⁄₁₆ per cent.; seven-day 8¾-9 per cent.; one-month 8¾-9 per cent.; three-month 9¼-9¾ per cent.; six-month 9¾-9⅞ per cent.; one year 10-10⁵⁄₁₆ per cent.

Long-term Eurodollar deposits: two years 8¼-8⅝ per cent.; three years 8⅜-8⅝ per cent.; four years 8⅜-8⅝ per cent.; five years 8⅜-8⅝ per cent.

The following nominal rates were quoted for London dollar certificates of deposit: one-month 7.30-7.40 per cent.; three-month 7.55-7.65 per cent.; six-month 7.80-7.90 per cent.; one year 8.00-8.10 per cent.

* Rates are nominal calling rates.

Short-term rates are call for sterling, U.S. dollars and Canadian dollars; two days' notice for guilders and Swiss francs.

MINING NOTEBOOK

It's a long hard road for the rock-cutter

BY LODESTAR

IT HARDLY seems as long as ten years since a member of the mining fraternity just back from Johannesburg rushed excitedly into my office with what seemed then to be tremendous news.

It was that new rock-cutting techniques in the South African gold mines would slash costs owing to a reduction in the amount of barren rock that would have to be extracted with the ore: increase the grade of ore milled through more selective mining: and do away with blasting by explosives thus making for safer working conditions.

Now, a decade later, the new methods are still not in general use and problems remain to be overcome even after ten years of intensive investigations. But the promise is still there and a potted history of progress to date should make shareholders realise the patience needed by the industry in fighting cost inflation by new technical processes.

The Chamber of Mines of South Africa has itself considered such an exercise worth while. Rock-cutting is a rock-breaking method which consists of cutting a slot in the rock above the reef thus relieving the pressure on the material below the slot and allowing it to be removed relatively easily by simple mechanical means. Different techniques are needed from those involved in the mechanical mining of coal owing to the hard and abrasive quartzites which carry the gold in South Africa.

Experiments were started at the Doornfontein mine as long ago as 1968. The first ones were mainly useful for outlining the problems that had to be overcome and revising a number of preconceived notions that proved incorrect. After some two years it was at least indicated that the rock-cutting principle was indeed a practical possibility.

The second phase was devoted to the development of the rock-cutters themselves. It was not until 1973 that this culminated in several prototype machines for underground trials on a pilot basis. These trials in turn lasted for some two to three years.

The Chamber says that at the beginning of the trials there was a vast range of unanswered questions while in some areas the questions had not even been asked. At their end in 1976 successful solutions had been found to most of the riddles and the costs of the operation had been brought within bounds.

They amounted to R17.03 per centare mined compared with an average of R11.50 to R16.50 in the deep-level mines using explosive techniques in the 1973-74 period. Two outstanding problems remained.

The mining rate and labour productivity were lower than considered acceptable. Even so, production trials started in 1976 using two new machine systems. Slot-cutting rates were improved by between five and ten times by a technique discovered and developed at the Mining Technology Laboratory making use of high-pressure water jets directed just ahead of the leading edge of the cutting tool.

The productivity problem remains to be overcome, however. Breaking the rock from the face after cutting and removing it quickly and efficiently have proved particularly labour-intensive. So mechanisation of these processes are now being investigated.

Thus after ten years there is still some way to go but the Chamber concludes that big strides have been made and that systems of mechanised mining can now be envisaged which will have the capability of working at rates unthought of a decade ago.

Not all of them will use the rock-cutting principle. But the mining of more than 55,000 square metres during the experiments "has laid a firm foundation for future work which otherwise could not even be considered let alone embarked upon."

Latest high-flyer in the Australian market is Atherton Antimony which once had hopes for that mineral at a place, in hindsight, aptly called Mt. Misery. Since 1973 the company's main activity has been the manufacture and distribution of soaps and chemicals.

Recently the shares took off from a low of 13 cents in Sydney to reach 66 cents, this time on golden hopes in Fiji. Last week they jumped afresh to 83 cents following the issue of a report on the new venture.

This gave assays from a sampling programme at the Vuda Valley porphyry gold find. An area of 7.3 hectares of a total 688 hectares has been gridded and yielded values of up to 34.5 dwts gold per tonne and an average from samples taken of 13.5 dwts, very high it is reckoned for a deposit of this type.

They could, of course, come from an enriched surface oxidised zone. Mineralisation is also claimed to have been established by panning in an old adit at a depth of about 30 metres (98 feet) and the directors say it can be assumed that mineralisation should be continuous down to at least this depth. No assays from the adit are given, however.

Any venturesome investor who wants a "punt" (to use the down-under expression for gamble) in Atherton will have to deal in Australia as no market has yet developed in the shares in

Barymin's buy

Three weeks ago Barymin Explorations' progress in taking its Yava lead deposit in Nova Scotia to production was reported here. The nearby mill then mentioned as being available has now been bought for a modest $0.3m. (£145,000).

An initial production rate of 650 tons of ore daily is planned to produce from 22m. lbs of lead in concentrate annually and to give what is described in the feasibility study as an "attractive" return on capital employed at lead prices of around £300 a tonne. Present London quotation is £305.

The final requirement is for Barymin to raise about another $2.5m. (£1.2m.) for the project. Negotiations for this are stated to be in progress. The shares are 53p in London.

INSURANCE

Securicor judgment will attract careful study

BY OUR INSURANCE CORRESPONDENT

MEMBERS of the British security industry have, until now, operated behind contracts which have excluded liability for failure, wholly or partly, to provide those goods and services that the customer has purchased, though in this respect the British security industry has been little different from the majority of other suppliers of goods and services.

Exemption clauses apart, the industry has enjoyed a high degree of immunity from claims from customers because in the majority of cases, where there has been provable fault or negligence leading to the failure of an alarm or the absence of a guard, it is the customers' insurers who have met the bill for the ransacked shop or the gutted factory.

Reluctant

Insurers have been reluctant to claim, partly because they rely so heavily on the industry for the provision of alarms, guards, armoured money carriers and so on to protect the risks they insure and partly because most of the security firms have liability insurance and a claim against a security firm after a fire or burglary is in practice a claim between insurers.

Moreover, if either the fire or liability risk is scheduled, as it oftenn is, the this may well involve a claim between departments of the same office.

So there has been no litigation worth mentioning and so far as I know no reported decisions on the validity of any of the security industry's exclusion clauses until March of this year when the dispute between Photo Production and Securicor Transport reached the Court of Appeal, arising out of a fire at the plaintiff's factory at Gillingham, Kent.

Securicor had provided a night patrol service and had employed as a patrolman George Musgrove. Musgrove had deliberately started a fire—he said he had intended it only to be a small fire but it had got beyond control—and the factory was virtually destroyed: Musgrove pleaded guilty to causing malicious damage and was sentenced to three years in prison.

Default

Securicor's contract provided that the company would not be responsible for any injurious act or default by any employee unless it could have been foreseen and avoided by the exercise of due diligence on the part of the company.

It also ruled that in respect of loss by fire, responsibility would attach to the company only if the fire was solely attributable to the negligence of the employee acting in the course of his employment: beyond these restrictions there were further financial limitations applicable if in fact there was liability.

Argument at an early stage of the dispute centred on whether Musgrove was acting in the course of his employment when he started the fire. There is a mass of case law on this kind of problem, and the company conceded that he was so acting. Later came argument that Securicor accepted fire responsibility for negligence but not for deliberate acts.

The trial judge upheld the contractual exemptions, but all three judges in the Court of Appeal ruled against Securicor. Lord Denning, well-known for his hostility to exclusion clauses, gave the first judgment and set the tone—Securicor had been guilty of fundamental breach of contract.

It had been employed to protect the factory but instead, through their servant, they had deliberately burned it down, thereby doing the opposite of what they had contracted to do: this fundamental breach stopped the company from relying on its exemption clauses.

Lord Denning also referred to the Unfair Contract Terms Act 1977 which allows the courts to consider the fairness and reasonability of exclusion clauses: the Act, of course, was not applicable and so did not figure in the pleadings, but Lord Denning thought that the Act pointed the way the courts should go.

The courts, said Lord Denning, would not allow a party to rely upon an exemption or limitation clause where it would not be fair and reasonable to allow reliance on it.

Premiums

On this point it is not clear from the short Press reports whether the other judges agreed, and if they did not Lord Denning may well be on his own in seeking to apply the provisions of the new Act by analogy. But certainly Lord Justice Waller agreed with him on the fundamental breach point.

Since the judgment was given no doubt the security firms have been examining carefully the words of the judges with their lawyers and looking to their contracts; no doubt, also, insurers providing security firms with liability cover will be looking hard at the premiums they charge and at the excesses or percentage of claim they require the security firms to bear on their own account.

OTHER MARKETS

		Notes Rates	
Argentina	1588-1590	Argentina	1750-1550
Australia	1.6057-1.6216	Austria	26.5-28.0
Brazil	30.80-31.60	Belgium	58-58½
Finland	7.70-7.71	Brazil	57-57
Greece	67.198-69.888	Canada	2.06-07½
Hong Kong	8.44-8.46½	Denmark	10.25-0.45
Iran	128-131	France	8.30-8.45
Kuwait	0.505-0.515	Germany	3.70-3.80
Luxemb'rg	58.76-58.85	Greece	68-72
Malaysia	4.3580-4.3725	Italy	1545-1595
N. Zealand	1.7945-1.8182	Japan	4.05-4.25
Saudi Arab.	6.26-6.36	Nether'nds	3.95-4.10
Singapore	4.2495-4.2655	Norway	9.80-10.00
S. Africa	1.5743-1.6997	Portugal	74-79
U.S.		Spain	143½-147½
Canada		Switz'land	3.50-3.65
CSI		U.S.	1.81-1.85
U.S. cents	88.26-88.51	Yugoslavia	35-37

Rate given for Argentina is a free rate

FORWARD RATES

	One month	Three months
New York	0.50-0.40 c. pm	1.22-1.12 c. pm
Montreal	0.48-0.38 c. pm	1.22-1.12 c. pm
Amst'dam	2½-1½ c. pm	6-5 c. pm
Brussels	35-15 c. pm	65-55 c. pm
Cop'nhgn.	3¼-5¼ ore dis	10½-12½ ore dis
Frankfurt	2¾-1¾ pf pm	7-6 pf. pm
Lisbon	60-220 c. dis	310-580 c. dis
Madrid	par-80 c. dis	40-140 c. dis
Milan	1-7 lire dis	11-16 lire dis
Oslo	3½-5½ ore dis	9-11 ore dis
Paris	1½-½ c. pm	3¼-1¼ c. pm
St'ckhlm	1 ore pm-1 ore dis	Par-2 ore dis
Vienna	14-4 gro pm	27-17 gro pm
Zurich	3⅜-2⅜ c. pm	8⅝-7⅝ c. pm

Six-month forward dollar 2.22-2.12c pm. 12-month 4.25-4.10c pm.

NOTICE OF REDEMPTION TO THE HOLDERS OF

Ente Nazionale per l'Energia Elettrica (ENEL)

(Italian National Electric Energy Agency)

Guaranteed Floating Rate Loan Notes 1980

NOTICE IS HEREBY GIVEN, that pursuant to the Fiscal Agency Agreement dated May 27, 1970, there has been selected for redemption on May 31, 1978, through operation of the Sinking Fund, $10,000,000 principal amount of Ente Nazionale per l'Energia Elettrica (ENEL) Guaranteed Floating Rate Loan Notes 1980. The following are the serial numbers of the Loan Notes which will be redeemed, in whole or in part:

Loan Notes in the principal amount of $1.000 bearing the prefix M to be redeemed in whole.

Loan Notes in the principal amount of $10,000 bearing the prefix X and the principal amount to be redeemed.

(Continued on following page)

(Continued from preceding page)

Loan Notes in the principal amount of $10,000 bearing the prefix X and the principal amount to be redeemed.

Serial Numbers	Amount Redeemed
[illegible]	[illegible]

Loan Notes in the principal amount of $100,000 bearing the prefix C and the principal amount to be redeemed.

Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed
1602	$15,000	1610	$12,000	1618	$13,000	1626	$13,000	1634	$11,000	1642	$13,000	1650	$11,000	1658	$13,000
1603	12,000	1611	13,000	1619	13,000	1627	13,000	1635	14,000	1643	11,000	1651	14,000	1659	12,000
1604	14,000	1612	13,000	1620	14,000	1628	14,000	1636	18,000	1644	13,000	1652	13,000	1660	13,000
1605	14,000	1613	15,000	1621	12,000	1629	12,000	1637	15,000	1645	13,000	1653	13,000	1661	15,000
1606	11,000	1614	11,000	1622	13,000	1630	13,000	1638	13,000	1646	14,000	1654	14,000		
1607	13,000	1615	14,000	1623	13,000	1631	13,000	1639	14,000	1647	14,000	1655	13,000		
1608	13,000	1616	16,000	1624	15,000	1632	14,000	1640	13,000	1648	13,000	1656	16,000		
												1657	13,000		

Loan Notes in the principal amount of $500,000 bearing the prefix D and the principal amount to be redeemed.

Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed
222	$60,000	226	$61,000	229	$62,000	233	$61,000
223	$63,000	227	$63,000	230	$60,000	234	$61,000
224	$63,000	228	$61,000	231	$63,000	235	$60,000
225	$62,000						

Accordingly, on May 31, 1978 the Loan Notes or portions thereof so designated for redemption will become and be due and payable, subject to the deposit of the funds with the Fiscal Agent, at one-hundred percent (100%) of the principal amount thereof in United States dollars, at the option of the holder, either (a) at the corporate trust office of Bankers Trust Company, New York, New York 10006 or (b) subject to any applicable laws or regulations in the country where each of the following offices is located, at the City Office of Bankers Trust Company in London, at the office of S. G. Warburg & Co. Limited in London, or at the main offices of Banque Internationale à Luxembourg and Banque de Suez, Luxembourg in Luxembourg-Ville.

The redeemed Loan Notes (with the exception of the Loan Notes set forth in the following paragraphs) should be presented with all coupons maturing after May 31, 1978. Coupons maturing on May 31, 1978 and prior thereto should be detached and surrendered for payment in the usual manner. From and after May 31, 1978, interest on redeemed Loan Notes or portions thereof to be redeemed will cease to accrue.

A certain Loan Note which was called for redemption on May 31, 1974 has not been presented for payment. Loan Note number M3669 was called in whole. The Loan Note in this paragraph should be presented with all coupons maturing after May 31, 1974.

Certain Loan Notes which were called for redemption in whole or in part on May 28, 1976 have not been presented for payment. Loan Notes numbers M579, M3558, M3561, M10801, M27859, M34549 and M54130 were called in whole. The following Loan Notes in the principal amount of $10,000 bearing the prefix X were called in part:

Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed
400	$3,000	875	$1,000	2510	$1,000	5443	$1,000	8468	$1,000	8471	$1,000
424	2,000	1927	2,000	5435	1,000	8466	1,000	8470	1,000		

Loan Notes in the principal amount of $100,000 numbers C1533 was called for $6,000 and C1534 was called for $9,000. Loan Notes in this paragraph should be presented with all coupons maturing after May 28, 1976.

Certain Loan Notes which were called for redemption in whole or in part on May 31, 1977 have not been presented for payment. Loan Notes numbered M1532, M1704, M3560, M6565, M6680, M6785, M10717, M11182, M16654, M17778, M27829, M27960, M34542 and M54129 were called in whole. The following Loan Notes in the principal amount of $10,000 bearing the prefix X were called in part:

Serial Numbers	Amount Redeemed	Serial Numbers	Amount Redeemed
8467	$1,000	8472	$1,000

Loan Notes in this paragraph should be presented with all coupons maturing after May 31, 1977.

The holder of any Loan Note which is redeemed in part only upon surrender thereof as above provided shall obtain in exchange for the unredeemed portion thereof at no additional cost an equal aggregate principal amount of Loan Notes of authorized denominations.

BANKERS TRUST COMPANY
Fiscal Agent

Dated: May 1, 1978

'Pru' still finds gilt market attractive

THE MIGHTY PRU, the largest life company in the U.K., still found the gilt market attractive last year as a place to invest new money. The 1977 report and accounts of **Prudential Assurance** show that U.K. life funds invested £249m. *out of a total of £405m.* in gilts, while U.K. general funds put in £12m.—of which £6m. was financed from equity sales. Investment in the fixed-interest sector figured even more prominently for the overseas funds. Life funds invested £72m. out of £81m. and general funds £42m. out of £44m.

However, the recovery in the U.K. equity market made this sector more attractive to the Pru than in 1976, a total of £82m. of U.K. *life funds* being *invested in* equities, compared with £28m. in 1976. Overseas life funds put £7m. into equities. Property investment was slightly down last year as certain developments reached completion, but the U.K. life funds still put £76m. into real estate.

At the year end, the combined portfolio, amounting to £4.6bn. *was spread between gilts*—19.4 per cent.—other fixed-interest—17.7 per cent.—equities—38.9 per cent.—properties—24.4 per cent., and mortgages—7.3 per cent. The most significant changes occuring in gilts and equities. The accounts lists the 20 largest equity holdings by market value, but not in size, and include British Petroleum, General Electric ICI, Land Securities, Shell Transport, and *Unilever.*

The directors point out that *demand for finance* in the U.K. came predominantly from the Government and the group invested a major portion of funds at yields which continued to look attractive with the prospect of lower inflation. They refer to the *modest demand for new industrial* finance, despite the strength of the equity market and the continued willingness of most institutions to invest in this sector.

Ordinary life funds amounted to £3.22bn. at the year end compared with £2.73bn. at the beginning. Regular premium income rose by 6.7 per cent. to £426m. and single premiums by 36 per cent. to £106m. Investment income was 19 per cent. higher at £260m., while claims and expenses were only marginally higher *at £391m.*

The Industrial branch fund reached £1.01bn. by the end of 1977, compared with £940m. at the beginning. Premium income was *10 per cent. higher at £149m.* and investment income rose by 16 per *cent. to £96m. A further £22m.* was added as part of the unrealised margin of investment over balance sheet values. Claims and expenses were 8 per cent. higher at £198m.

Total premium income in General Insurance at £358m. showed an increase of £36m. Gross investment income was £2m. higher at £21.5m. But there was a gross underwriting loss (*already* reported) of £9.5m. and a transfer *to profit and loss of £10.4m., com*pared with £6.3m. in 1976.

Mr. Ronald Owen, in *his* chairman's statement, refers to the *acquisition last year of* Standard Trust, which raised the surplus of assets *over* liabilities by some £30m., with total free assets at the end of 1977 amounting to £180m. He points out that it is these free assets that support the growth of non-life business and the acquisition has given Pru a *better base for further growth.*

Phoenix cuts into expenses

IN HIS last annual statement *before retirement Lord* De L'Isle, the chairman of Phoenix Assurance says that since 1966 expenses including commissions as a ratio of premium income on fire and accident account have fallen from 39.7 per cent. to 30.9 *per cent. and there has* been *an* even greater reduction in the marine and aviation account from 17.6 per cent. to 9.3 per cent.

"Without such an improvement," says Lord De L'Isle, "We should have joined the loss-making sector. We should have deserved to go under."

During the 12-year period Phoenix achieved a five-fold *increase in its* premium income, and its investment earnings are now some nine times greater.

However, in the years 1966-78 the retail price index has increased more than threefold and the pound, despite its recent improvement, has depreciated 33 per cent. against the dollar. The *chairman says that the lesson* that good results can be achieved in an *unfavourable setting* strengthens his confidence in the future.

"Phoenix is doing more than maintain its place in the world-wide insurance market. Its direction and its management will, I *am sure,* continue to sustain the company and improve its performance."

Lord De L'Isle says the results for 1977 were encouraging. The dividend could be increased by the maximum permitted but this still would enable almost £15m. to be added to the reserves.

The greatest improvement in underwriting experience was in *the U.S.* The American insurance market enjoyed a year without any major catastrophes and Phoenix shared in the results through its association with the Continental Group of New York, which owns 20 per cent. of the Phoenix equity.

In North West Europe the market was unfavourable and underwriting losses were greater than *in the preceding year. However,* other areas overseas provided an *underwriting profit which more* than counter-balanced the European losses.

Lord de L'Isle admits to some disappointment with the U.K. results where about 40 per cent. of Phoenix's general business is written. "We *have suffered* from abnormally large fire damage claims in the last quarter of 1977, due, no doubt, to the prolonged strike of the firemen."

On life business in the U.K. the chairman says that it has over*taken previous records* both in terms of new sums assured and premium income. An increased surplus has been released to

First quarter standstill at BP Canada

BP Canada estimates unchanged first quarter net earnings of $11.5m. Mr. R. W. D. Hanbridge the president, told the annual meeting.

For the year 1978 as a whole the company will be hard pressed *to maintain* earnings from refining and marketing at the 1977 level. Earnings from gas production are expected to continue to compensate for reduced refining *and marketing income and the* directors are therefore estimating the same overall earnings as for last year.

In 1977, BP Canada, 65.5 per cent. owned by British Petroleum earned $40.29m. or $1.91. a share.

Pearl hit by agency dispute

In his annual statement, Mr. F. L. Garner, the chairman of **Pearl Assurance Co.**, says that in the industrial branch new business for 1977 was affected by a dispute with agency staff and new *annual premiums fell for the first* time for many years, from £15m. to £12.7m. New sums assured also fell from £234m. to £190m.

In the *ordinary* branch the effect was much less marked. During the year the company successfully introduced a new self-employed deferred annuity contract; as a result, annuities per annum increased from £5.7m. to £13.4m. but new sums assured fell from £363m. to £342m.

The loss of new premium income will reduce the growth in *the value of the company in* future years but not to any serious extent, says Mr. Garner.

Surrenders have been at a satisfactorily low figure in view of the pressure that inflation has exerted on savings during the year. In both branches the expense ratios have been reduced, from 40.51 to 40.02 per cent. in the industrial branch and from 35.64 to 34.10 per cent. in the ordinary branch.

In the industrial branch this is not entirely a good sign, since it results from the reduction in new *business and reflects the fact that* expenses are proportionately higher in the first year of a policy.

In the motor account (44 per cent. of the total premiums) the net underwriting loss amounted *to £1.4m. due mainly to the poor* claims experience in motor-cycle business.

There is good evidence that there will be a significant improvement in motor cycle results in 1978.

The property account (43 per cent. of the total premiums) consists mainly of householders' business and claims experience continued to be poor in line with the market. The underwriting loss of £1.7m. was the same as in 1976.

During the year the gilt-edged portfolio was increased by over £45m. following the previous year's increase of some £2[illegible]m. Gross advances under house purchase mortgages totalled £12m., with net lending amounting to £4½m.

NPI goes for equities

The National Provident Institution, a leading mutual life company, was an active investor in equities last year, according to *the annual report and accounts.* This shows that the company had £54m. available for investment—£44m. of new money, £4m. from additional overseas borrowing and £6m. transferred from money on deposit. It put a total of £16m. *into equities in 1977—of which* £12m. was in the U.K. and the remainder *overseas.* In the previous year, NPI had reduced overseas equity holdings by £12m. and had only increased its U.K. equities by £2m.

But the majority of new investment was still to be made in the *fixed-interest sector, mainly gilts,* a total of £38m. being invested in this manner, compared with £33m. in 1976. The company invested only £½m. last year in property but further investment of £4m. has been agreed, most of which involves *the construction* of new warehouses.

As a result of this investment pattern the proportion of assets held in equities remained unchanged at 39 per cent. from 1976, but fixed interest holdings accounted for 49 per cent. against 45 per cent. and property dropped from 16 per cent. to 12 per cent.

Premium income for 1977 rose *by 26 per cent. to £50m.—a new* annual premiums showing a rise of 14 per cent., twice the industry average—while net investment income was 43 per cent. higher at £25m. Claims and expenses rose over £4m. to £44m. so that after *a transfer of £3m. from invest*ment reserve of £3m. and a slight *rise in value of investments, long* term funds at the end of 1977 stood at £245m. against £197m. at the beginning.

10½% TREASURY REDEMPTION

The Bank of England announces *the Treasury will make no con*version offer in respect of *holdings of 10½ per cent. Treasury* Stock 1978. This stock will be redeemed at par on July 14, 1978. Redemption request forms will be issued on May 17.

RESULTS AND ACCOUNTS IN BRIEF

BLACKWOOD HODGE (sale and servicing of earthmoving and construction equipment)—Results for 1977 reported on April 18 in full preliminary statement *with prospects.* Group fixed assets £43.59m. (£41.64m.), net current assets £32.51m. (£26.44m.). Historic pre-tax profit *£16.63m. and on a CCA basis £11.62m.*, after depreciation £8.21m.; costs of sales adjustments £12.55m., less gearing adjustment £7.74m. As at March 31, Mary Sunley Family Settlement held 19 per cent. of Ordinary and Bernard Sunley Family Settlement 15.7 per cent. Meeting, Dorchester Hotel, Park Lane, W., May 24, at 12.30 p.m.

BRISTOL STADIUM—Results for 1977 already known. Group fixed assets £394,249 (£255,397), net current assets £120,356 (£211,955). Working capital decreased £152,571 (£296,567 increase). Meeting, 11, Mansfield Street, W, May 23 at 12.30 p.m.

CARPETS INTERNATIONAL—Results for 1977 reported April 13 with observations on prospects. Group fixed assets £28.31m. (£27.88m.), net current assets £28.42m. (£25.82m.). Net liquid funds decreased by £0.4m. (£1.32m. increase). Meeting, 14-15, Berners Street, W., May 25, noon.

CORINTHIAN HOLDINGS (financial services, banking, textiles)—Results for 1977 reported April 25. Groupfixed assets £586,329 (£228,655), net current assets £1.63m. (£1.38m.). Working capital increased by £118,000 (£121,000 decrease). Trustees of the Charles Wolfson Charitable Trust hold 29.9 per cent. Directors hope forward movement of company will continue in future. Meeting, Welbeck Street, W, May 24 at 10.30 a.m.

DINKIE HEEL COMPANY (*safety top* cap manufacturer)—Results for 1977 reported April 1. Fixed assets £161,987 (£118,862), net current assets £363,847 (£316,467). Net liquid funds increased by £58,000 (£16,000). Meeting Bristol, May 18 *at noon.*

MATTHEWS WRIGHTSON HOLDINGS (Insurance, Shipping, Air Broking) — Results for 1977 reported on April 15 in full preliminary statement. Group fixed assets £17.89m. (£16.34m.), net current assets £7.06m. (£6.1m.). Net liquid funds increased by £7.0m. (£13.54m.). Mercury Securities holds 26.8 per cent. of Ordinary and 67.6 per cent. of 7½ per cent. Convertible unsecured loan stock 1997-2002. Meeting 14/20, St. Mary Axe, E.C., June 2 at noon.

JOHN MENZIES (wholesale and retail newsagents, book sellers, and stationers)—Results for year to January 28 reported April 28 with directors comments on prospects. Group fixed assets £13.9[illegible]m. (£12.21m.). Net current assets £[illegible]m. (£1.17m.). Increase in cash balances £2.32m. (£1.07m.). Current cost pre-tax profit £3.61m. (£1.95m.), against £4.74m. (£3.1m.) historical, after depreciation adjustment £0.84m. (£0.5m.), and cost of sales adjustment £1.01m. (£1.2m.), less gearing adjustment £0.72m. (£0.55m.). Meeting, Edinburgh on May 24 at 12.15 p.m.

SHARPE AND FISHER (builders' merchants, *DIY, garden supplies*)—*Results for* 1977 reported March 17. Group assets £1.7m. (£1.65m.), net current assets £2.17m. (£1.77m.). Bank overdraft £397,207 (£315,016), net liquid funds increased by £115,883 (£255,410 decrease). Chairman says opening months of 1978 have been more encouraging but it is too early to express any firm opinion that industry is on a long-term improving trend. Meeting, Cheltenham, May 25, noon.

SCOTTISH ONTARIO INVESTMENT COMPANY—Gross revenue £1,140,502 (£1,009,929) for year to March 31, 1978. Earnings per 25p share 4.31p (3.71p). Net asset value prior charges at par 170p (155p) *and prior charges at market value* 173p (158p). Final dividend 2.55p making total 4.1p (3.5p) net. One-for-one scrip *proposed.*

SOUTHAMPTON, ISLE OF WIGHT AND SOUTH OF ENGLAND ROYAL MAIL STEAM PACKET COMPANY—Results for 1977 reported March 22. Group fixed assets £3.39m. (£3.74m.). Net current assets £1.36m. (£0.78m.), liabilities £0.69m. (£0.65m.). Outwich Investment Trust held 9.84 per cent. of the equity on December 31. Chairman confident that 1978 should be a better year. Meeting, Southampton, on May 24, at 12.30 p.m.

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The Board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

YESTERDAY

DIVIDEND & INTEREST PAYMENTS—
Atlas Electric and General Trust Db. 2½pc
Ayr 6½pc Red. 76-79 3¼pc
Ayrton Saunders 7½pcPf. 2.625pc
BET Omnibus Services 5½pcPf. 1.925pc
Bahia (State of) 5pc Gold Ln. of 1904 (Plan A—int. now 1½pc) [illegible]
Baltic Mercantile and Shipping Exchange Db. 1¾pc
Banro Cons. Inds. 5pcPf. 1.75pc. 7pcPf. 2.45pc
Bassett (Geo.) 7½pcPf. 2.625pc
Bell and Sime 5pcPf. 1.75pc
Birmingham 13pc Red. 1983 6½pc
Black (Peter) 2.42p
Boulton and Paul 5pcPf. 1.75pc. 5½pc Pf. 1.925pc. 7pcPf. 2.45pc
Brighton 6½pc Red. 76-79 3¼pc
Bristol 3½pcDb. 1¾pc. 7¼pcDb. 79-81 3⅝pc
British Electric Traction Db. 2¼pc
British Gas 3pc Gtd. 90-95 1½pc
British Inv. Trust 5¼pcPf. 1.8375pc
British Mohair Spinners 6pcPf. 2.1pc
British Shoe Corp. 6½pc3rdPf. 2.275pc
Brixton Estate Db. 3¼pc
Chase Manhattan Corp. Cnv. Cap. Nts. Due 1993 2⅞pc
Citicorp 29 cts.
City and Intl. Trust Dbs. 2⅛ and 2¼pc
City Investing 25 cts. 2ndPf. Series B 50 cts.
Coates Bros. 4½pcPf. 1.575pc
Continental Illinois Corp. 33 cts.
Courage Dbs. 3⅛ and 3⅝pc
Crouch 0.9075p
Dalgety Db. 2¼pc
Dominion and General Trust 5pcPf. 1.75pc
Drake and Scull 3.5pcPf. 1.75pc
Drayton Cons. Trust Db. 2¼pc (75-85)
Edinburgh Invest. Trust 3.55p
Edworks (1936) Ord. and A 1.2171p. Pfs. 3.65131p and 3½pc
Electric and General Invest. Db. 2¼pc
Estates Prop. Invest. Db. 3pc. Ln. 3⅞pc
Ferranti 3.85pcPf. 1.925pc
First Scottish American Trust Db. 1¼pc
Funding Ln. 6½pc 85-87 3¼pc
Furness Withy 5pcPf. 1.75pc
Gossard 5½pcPf. 1.925pc
Great Northern Invest. Db. 2⅛pc
Greek 7pc Refugee Ln. 1924 (Assd. with Accept. Certs.) 3½pc
Guaranteed 4½pc Bds. Created under N. Ireland Act (1925) Red. 2¼pc
Hammersmith 9½pc Red. 76-79 4¾pc
Hardys and Hanson 5pcPf. 1.75pc. Db. 2pc
Harrison and Sons 6pcPf. 2.1pc
Heywood Williams 8pcPf. 2.8pc
Inglis Db. 2½pc
Intl. Invest. Trust Db. 2¼pc
Ireland (Republic of) 4¼pc Nat. Ln. 75-80 2⅛pc
Islington 10pc Red. 82-83 5pc
King and Shaxson 5pcPf. 1.75p
Leeds Fireclay Db. 2pc
Lewis (John) Props. Db. 4¼pc
London and Holyrood Trust Db. 2pc
Londonderry Port and Harbour Commissioners 3½pc Con. 1¾pc
Lyons (J.) Db. 3pc
M. and G. Extra Yield Fd. 2.2p
McCaw Stevenson and Orr 5pcPf. 1.75p
Marks and Spencer 10pcPf. 3.5pc
Merchants Trust Db. 2pc
Mills and Allen 6½pcPf. 2.275pc
Mixconcrete 1.9155p
Montreal (City of) 3pc Perm. Db. 1½pc
Moorside Trust 5pc Trust 1.75pc
Newman Inds. 10pcPf. 5pc
Northern American Trust 3½pcPf. 1.75pc. Db. 1¼pc. Ln. 2¼pc
Norwich 3pc Red. 1½pc
Nottingham 3pc (Irred.) 1½pc
Parkland Textiles 4½pcPf. 1.575pc
Pentland Invest. Trust Dbs. 1⅞ and 2pc
Pentos 4½pcPf. 1.575pc
Pernambuco (Recife) (C. of) 5pc Gtd. Ln. Bds. (Plan A 1¾pc) 2½pc
Perry (Harold) Motors 2.9134p
Philips Furnishing Stores 6½pcPf. 2.275pc
Property and Reversionary Corp. 5pcPf. 1.75pc
Ratcliffs (Great Bridge) 1.247p
Reading 3½pc 1978 or after 1¾pc
Reckitt and Colman Db. 3⅜pc
St. Andrews Trust Db. 1½pc
Scottish Agricultural Secs. Corp. 3½pcDb. 63-93 1¾pc
Scottish Eastern Invest. Trust 2.8p
Scottish Invest. Trust 3.5pc Cum. Pfd. 1.75pc. 3.85pc Cum. Pfd. 1.925pc. 4.55pcPf. 2.275pc
Second Broadmount Trust 7pcPf. (Cancelled 17/4/78) 3½pc
Smith (W. H.) Db. 2¼pc
Sobranie Dbs. 3⅛ and 3⅝pc
Southampton Harbour Brd. 6½pc Red. 1982 3¼pc
Southwark 15pc Red. 80-81 7½pc
Stock Exchange Red. Ann. 2¼pc
Stockholders Invest. Trust Db. 2½pc
Treasury Ln. 6¾pc 95-98 3⅜pc
Treasury 10½pc 1979 5¼pc
Tunnel Hldgs. 3.85pcPf. 1.925pc. 3.5pc Pf. 1.75pc
Union Intl. 7pcPf. 2.45pc
Uruguay 3½pc Bds. (Assd.) 1¾pc
Vaux Breweries 7pcPf. 2.45pc. 4½pc Pf. 1.575pc. 6½pcPf. 2.275pc
Warley 7¼pc. Red. 79-80 3⅝pc
Watney Mann and Truman Db. 3[illegible]pc. Lns. 2¾ and 4[illegible]pc
Webster (Samuel) Db. 2¼pc
Whitbread 4½pcPf. 1.575pc. 6pcPf. 2.1pc. 7pcPf. 2.45pc. Db. 2¼pc
Wilson Peck 7½pcPf. 2.625pc
Young's Brewery Db. 3⅜pc

TODAY

COMPANY MEETINGS—
Banro Consolidated Inds., Sutton Coldfield, 12
Kleinwort Benson Lonsdale, 20, Fenchurch Street, E.C., 2
The Family Invest. Trust, 20, Fenchurch Street, E.C., 2

Finals:
Boustead
Clarke (Clement)
Davies and Newman
First Castle Secs.
Laing (John)
Roberts Adlard
Scottish Northern Inv. Trust
Vernon Fashion
Wadham Stringer

Interims:
Arenson (A.)

DIVIDEND & INTEREST PAYMENTS—
A.P.V. 3.15pcPf. 1.575pc. 4.55pcPf. 2.275pc. 5.25pcPf. 2.625pc
Anglia Television N/V A Ord. 2.30329p
Berwick upon Tweed 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Bishopsgate Trust Db. 2⅞pc
Bolsover 8pcBds. Red. 31/10/79 4pc
Bristol Variable Rate Red. 1982 £3.31
British Vita 1.09p
Bromsgrove 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Brown and Tawse 7pcPf. 2.45pc
Cameron (J. W.) 5pcPf. 1.75pc. 6pcPf. 2.1pc
Derwent Valley Railway 5pcPf. 3.5pc
Dundee 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Durham 10½pcBds. Red. 28/10/81 5[illegible]pc
Edinburgh 6⅝pc Bds. Red. 8/11/78 3[illegible]pc
Edinburgh Invest. Trust Db. 3⅛pc
Esso Petroleum Db. 2¼pc
General Stockholders Invest. Trust 5½pcPf. 1.925pc
Glaxo Ln. 3⅞pc
Grampian 6⅝pcBds. Red. 8/11/78 3[illegible]pc. 8pcBds. Red. 31/10/79 4pc
Hambros Invest. Db. 2⅝pc
Hellenic and General Trust Db. 2¼pc
Henckeys 7½pcPtg.Pf. 2.625pc
Hungarian 7½pcStlg.Bds. 1924 Enfaced Bds. (4½pc) (assd. in London to 1968 settlement) (2.75pc) 3¼pc
Invest. Trust of Guernsey 4.5p
Islington 9¼pc Red 77-78 £4.6503. 9⅛pc Bds. Red. 29/10/80 4[illegible]pc
Kode Intl. 3.05p
Lamont 6pcPf. 2.1pc
Lawtex 1.5p
Lex Service 2.079p
Lincoln 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Lindustries 5pcPf. 1.75pc
Lonsdale Universal Ln. 4pc
Malvern Hills 6⅝pcBds. Red. 8/11/78 3[illegible]pc. 10½pcBds. Red. 16/5/79 5¼pc
Mentmore Manufacturing 6pcPf. 3pc
Metal Box Overseas 3.675pcPf. 1.8375pc
Mole Valley 9⅛pcBds. Red. 29/10/80 4[illegible]pc. 10⅛pcBds. Red. 28/10/81 5[illegible]pc
Newbury 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Norwich 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Oliver (George) Footwear Ord. and A 1.29p
Raine Engineering Inds. 0.286p
Renwick 4.9pcPf. 2.45pc
Rother 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Scottish and Newcastle Brews. 5½pcPf. 1.925pc. 7¾pcPf. 2.7125pc
South Africa 9½pc Reg. 79-81 4¾pc
South Bedfordshire 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Spelthorne 8pcBds. Red. 31/10/79 4pc

DIVIDEND & INTEREST PAYMENTS—
Spencer (George) 1.714543p
Stafford 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Stone-Platt Inds. 1.33p
Strathclyde 6⅝pcBds. *Red.* 8/11/78 3[illegible]pc
Tamworth 8pcBds. Red. 31/10/79 4pc
Tendring 6⅝pcBds. Red. 8/11/78 3[illegible]pc
Test Valley 9⅛pcBds. *Red.* 29/10/80 4[illegible]pc
Tonbridge and Malling 6⅝pcBds. Red 8/11/78 3[illegible]pc
Trans-Oceanic Trust 5pcPf. 1.75pc
Wadsworth 8pcBds. Red. 31/10/79 4pc
Waltham Forest 9⅛pcBds. Red. 29/10/80 4[illegible]pc
Wrighton (F.) (Assoc. Cos.) 5½pcPf. 1.925pc

TO-MORROW
WEDNESDAY, MAY 3

COMPANY MEETINGS—
Allen Harvey and Ross, 45, Cornhill, E.C., 12.30
British Anzani, Aylesford, Kent, 11
Cartwright (R.), Chamber of Commerce, *Birmingham*, 12
Fairclough Construction, Midland Hotel, Manchester, 11.30
Ford (Martin), Winchester House, E.C., 12
High Gosforth Park, Newcastle, 12
Lambert Howarth, Burnley Crest Motel, 12
McKay (Hugh), Royal County Hotel, Durham City, 12
Pittard, Manor Hotel, Yeovil, Somerset, 12
Schroders, 120, Cheapside, E.C., 12.15
Scottish Road Services, Cumbernauld, Glasgow, 10
Thurgar Bardex, Kettering, Northamptonshire, 11.30
United States Debenture Corp., Austral House, E.C., 2.15

Finals:
British Inv. Trust
Continental Union
Haden Carrier
Laporte Inds.
Marks and Spencer
Marshall's Universal
Peninsular and Oriental Steam Navigation
Photax (London)
Sainsbury (J.)

Interims:
Devenish (J. A.)

DIVIDEND & INTEREST PAYMENTS—
Aberdeen Trust Db. 2pc (May)
Anglo-American Ind. Corp. 48 cts.
Bogod-Pelepeth Ord. 0.3p. Ord. A Rest.-Vtg. 0.6p
Bromley 9⅝pcBds. Red. 3/5/78 £4.9707
Cambridgeshire 9⅝pcBds. Red. 3/5/78 £4.9707
Central Regional Council 9⅝pcBds. Red. 3/5/78 £4.9707
Chelmsford 9⅝pcBds. Red. 3/5/78 £4.9707
Consolidated Plantations 3.5p
Copeland 9⅝pcBds. Red. 3/5/78 £4.9707
Croydon 9⅝pcBds. Red. 3/5/78 £4.9707
Cumbria 9⅝pcBds. Red. 3/5/78 £4.9707
Dudley 9⅝pcBds. Red. 3/5/78 £4.9707
Ealing 9⅝pcBds. Red. 3/5/78 £4.9707
East Staffordshire 9⅝pcBds. Red. 3/5/78 £4.9707
Eastbourne 12¾pcBds. Red. 3/5/78 £6.4798
Epping 9⅝pcBds. Red. 3/5/78 £4.9707
Family Invest. Trust 2.35p
Fareham 9⅝pcBds. Red. 3/5/78 £4.9707
Glasgow 9⅝pcBds. Red. 3/5/78 £4.9707
Harrisons Malaysian Estates 1.25p
Intl. Invest. Trust 1.45p
Islington 9⅝pcBds. Red. 3/5/78 £4.9707
Lewisham 11¼pcBds. Red. 3/5/78 £5.8106
Lochaber 9⅝pcBds. *Red. 3/5/78 £4.9707*
London 9⅝pcBds. Red. 3/5/78 £4.9707
Mendip 9⅝pcBds. Red. 3/5/78 £4.9707

DIVIDEND & INTEREST PAYMENTS—
North Wiltshire 9⅝pcBds. Red. 3/5/78 £4.9707
Northampton 9⅝pcBds. Red. 3/5/78 £4.9707
Nottingham 9⅝pcBds. Red. 3/5/78 £4.9707
Orkney Islands 9⅝pcBds. Red. 3/5/78 £4.9707
Park Place Invest. 0.3p
Roxburgh 9⅝pcBds. *Red.* 3/5/78 £4.9707
Three Rivers 9⅝pcBds. Red. 3/5/78 £4.9707
Thurgar Bardex 0.48375p
Trans-Oceanic Trust 1.5p
Treasury Ln. 15¼pc 1996 7⅝pc
Union Corp. 15.897959p
Waveney 9⅝pcBds. Red. 3/5/78 £4.9707
West Oxfordshire 9⅝pcBds. Red. 3/5/78 £4.9707
West Somerset 9⅝pcBds. Red. 3/5/78 £4.9707
Wigtown 9⅝pcBds. Red. 3/5/78 £4.9707
Yule Catto 0.787p

THURSDAY, MAY 4

COMPANY MEETINGS—
Albright and Wilson, Hyde Park Hotel, W.C., 12
City and Commercial Invest. Trust, 117, Old Broad Street, E.C., 12.15
Collins (William), Glasgow, 12.30
East Lancashire Paper, Radcliffe, 11.45
Jamesons Chocolate, Willoughby Lane, Tottenham, N., 2.30
Refuge Assurance, Oxford Street, Manchester, 12
Solicitors' Law Stationery, Savoy Hotel, W.C., 12

Finals:
Altifund
Feedex
Guardian Inv. Trust
Harrison (T. C.)
Mettoy
Mothercare
Porter Chadburn
Sears Hldgs.
Southern Constructions
Wills (George)

Interims:
British Sugar
London and Provincial Shop Centres
National and Commercial Banking
Serck
Tyzack (W.)
United Wire

DIVIDEND & INTEREST PAYMENTS—
African Lakes Corp. 4.4p
Allen Harvey and Ross 15.358p
Barnsley 10½pcBds. Red. 2/5/79 5¼pc
Belfast 6½pc Red. 77-80 3¼pc
Brighton 10½pcBds. Red. 2/5/79 5¼pc
Britannic Assurance 6.1777p
Canterbury 11⅝pcBds. Red. 30/4/80 5[illegible]pc
Cartwright (R.) 2.5p
Exeter 10½pcBds. Red. 2/5/79 5¼pc
First Guernsey Secs. Trust 3½p
Ford (Martin) 1.3p
Jamesons Chocolates 2.406p
Lancashire 10½pcBds. Red. 2/5/79 5¼pc
Leeds 12⅝pcBds. Red. 28/4/82 6[illegible]pc
Lothian 10½pcBds. Red. 2/5/79 5¼pc
Neil and Spencer 1.184p
Newham 11⅝pcBds. Red. 30/4/80 5[illegible]pc
Slough 11⅝pcBds. Red. 30/4/80 5[illegible]pc
South Pembrokeshire 10½pcBds. Red. 2/5/79 5¼pc
Wellingborough 10½pcBds. Red. 2/5/79 5¼pc
Wolverhampton 10½pcBds. Red. 2/5/79 5¼pc

FRIDAY, MAY 5

COMPANY MEETINGS—
Alliance Trust, Dundee, 11.30
Church, St. James, Northampton, 12
Clifford (Charles), Stourbridge, 4
Desoutter, Hendon Hall Hotel, Parson Street, N., 12
Montagu Boston Invest. Trust, Winchester House, E.C., 12
New London Properties, The Dorchester, W.C., 12.30
Pye Holdings, Hyde Park Hotel, S.W., 12
Ransomes Sims and Jefferies, Ipswich, 3

Finals:
Audio Fidelity
Neill (James)
Ovenstone Inv.

Interims:
Higsons Brewery
North Midland Construction
Silverthorne Slingsby
Sungei Bahru Rubber Estates
Ulster Television

DIVIDEND & INTEREST PAYMENTS—
Associated Portland Cement 6.5411p
Bejam 0.7p
Berry Pacific (Sterling) Fd. Ptg. Red. Pf. 1.5p
British Empire Secs. and General Trust 0.17p
Brixton Estates Db. 3⅞pc
Collins (William) Ord. and A 2.592p (inc. supp. distbn. of 0.039p o/a yr. ended 1976)
Currys 4.602139p (inc. supp. distbn. of *0.062529p o/a yr. ended 31/1/77*)
Delta Metal Db. 5⅛pc
Desoutter Bros. 3.27p
Ductile Steels 1.9261p
East Lancashire Paper 1.945p
Empress Services 0.1p
General Mining and Finance Corp. 135 cts.
Hall Engineering 2.2128p
Howden 0.933p
Metal Box Ln. 5¼pc
Neepsend 1.5p
Noble and Lund 4.9p
Phoenix Mining and Finance 0.75p
Refuge Assurance 5.8p
Renong Tin Dredging 1.5p
Schroders 8.4401p
Turner (W. and E.) 1.22647p

SATURDAY, MAY 6

DIVIDEND & INTEREST PAYMENTS—
Arndale Property Trust Ln. 3⅞pc
Associated British Foods Db. 3⅜pc
Associated Portland Cement Db. 5⅛pc
Brooke Bond Liebig Ln. 3½pc
Burton *Ln.* 3½pc
Cadbury Schweppes Ln. 4⅛pc
Carpets Intl. Db. 4⅛pc. Ln. 4⅛pc
Church 2.67p
Courtaulds 6pcPf. 2.1p. Lns. 3⅛ and 3⅜pc
Distillers Ln. 3⅜pc
Hurst (Charles) Motors Db. 3¼pc
Tilling (Thomas) Ln. 4⅛pc
Whitbread Ln. 3⅜pc

INTERNATIONAL FINANCIAL AND COMPANY NEWS

NORTH AMERICAN NEWS

Philip Morris in $440m bid fight for Seven-Up

BY STEWART FLEMING

NEW YORK, May 1.

PHILIP MORRIS, the leading U.S. cigarette and beer producer and one of the most successful growth companies of the decade, has launched a bid to become a major force in the soft drinks industry with a $440m. takeover offer for Seven-Up.

The bid seems destined to run into fierce opposition from members of the founding families of Seven-Up who together control over 45 per cent. of the stock. Seven-Up said to-day that the families do not intend to accept the $41 a share tender.

It disclosed that the unwelcome bid folowed an attempt to open discussions aimed at securing a friendly merger agreement.

Seven-up is the third largest U.S. soft drinks producer, with annual sales revenues of $251m. in 1977 and net income of $25.8m. Earnings per share last year were $2.38, putting the shares on an exit historic earnings multiple of 17 times at the proposed offer price. Before the announcement of the Philip Morris move, Seven-Up shares were trading at $31½.

Seven-Up is much smaller than the industry giants Coca-Cola which has annual sales revenues of $3.5bn. and Pepsico, which also has sales revenues last year of $3.5bn., $1.3bn. of which also had sales revenues beverages division.

Through its marketing first of Marlboro cigarettes and in the past five years Miller beers, Philip Morris has built up an enviable record in the U.S. as a successful and aggressive competitor in the consumer industry. Last year its sales revenues topped $5.2bn. and net income increased to $335m. Earnings per share were $5.60. A decade ago Philip Morris earned a net profit of $49m.

Its major successes have been the development of Marlboro into the world's best-selling cigarette brand and the diversification into the brewing industry. In 1970 it bought Miller Brewing at that time the eighth biggest U.S. brewer and a company which was well down the league in size and performance.

Under Philip Morris's control, Miller has been transformed, partly through the successful introduction and promotion of low calorie beer to an increasingly health-conscious U.S. public. This year Miller has replaced the Joseph Schlitz brewing company as the second largest national brewer behind the industry leader Anheuser-Busch.

Industry analysts have been expecting to see a wave of rationalisation in the brewing industry with companies like General Foods and Coca-Cola rumoured to be examining the industry. Last year Coca-Cola bought the Taylor Wine company.

Philip Morris's tilt at the soft drink business through the acquisition of a company which has been emphasising the health advantages of its main products (Seven-Up is a clear carbonated drink similar to what is known in the United Kingdom as lemonade) could lead to the development of a powerful new competitor in the industry dominated by Coke and Pepsi.

But first judging from Seven-Up's initial reaction Philip Morris will have to succeed in its battle for control.

On recent Wall Street evidence, at least one possibility is that a search will be mounted for a rival offer unless Seven-Up's shareholders can be persuaded to change their mind on the Philip Morris offer.

Kennecott drama nears climax

BY JOHN WYLES

NEW YORK, May 1.

ONE OF the most abrasive and absorbing contests in U.S. corporate history reaches a climax to-morrow when the annual general meeting of Kennecott Copper Corporation will decide whether to hand control of the country's largest copper producer over to a list of directors nominated by Curtiss-Wright Corporation.

The Curtiss-Wright challenge which began in the middle of March after the New Jersey company had acquired 9.9 per cent. of Kennecott stock, has ensured that to-morrow's will be one of the most important annual general meetings of the year. Upwards of 60 journalists are expected to be in the grand ballroom of New York's Plaza Hotel where television cameras will be concentrating on the two central figures in the drama. Mr. T. Roland Berner, chairman of Curtiss-Wright, and Mr. Frank R. Milliken, chairman of Kennecott.

Mr. Berner, a 67-year-old former lawyer, who became chairman of Curtiss-Wright in 1960, is a tough, shrewd opportunist who in the past six weeks has fought a bare-knuckled battle for headlines aimed at winning shareholder support for his directors.

But Mr. Berner was regarded by Kennecott management from the first as a serious opponent because he set about exploiting a seam of shareholder discontent whose existence was well known. In the past 10 years the company's share price has been more than halved and dividends have fallen from around $2 to 60 cents a share. When Kennecott was forced by the anti-trust laws to divest itself of Peabody Coal Company last year, many shareholders felt strongly that a portion of the $1.2bn. proceeds ought to be distributed.

Instead Kennecott management spent $567m. on acquiring Carborundum which by any standards is a well respected, financially sound producer of industrial abrasives. Kennecott's aim was to diversify against the cyclical turns of the copper industry which have badly hurt the company's profits in recent years—it lost money in 1975 and 1976 and had a modest $297,000 operating profit last year.

But Mr. Berner has assailed Kennecott for paying over the odds for Carborundum, which is debatable, and is offering shareholders the lure of profit by promising that his directors will sell off Carborundum. He undermines his case a little by indicating that he expects to be able to secure close to Kennecott's purchase price for Carborundum and promises that he will raid the residue of the copper company's proceeds from the sale of Peabody to pay out $40 a share to each shareholder at a total cost of more than $660m. His formula calls for each stockholder to surrender half his holding in Kennecott

As a result, Curtiss-Wright would receive $66m. in return for its $77m. expenditure on Kennecott stock, while retaining its 9.9 per cent. stake.

The outcome of to-morrow's vote may not be known for some days because shareholders are allowed to change their votes right up to the time of ballot. This means that the proxies which both sides are currently holding may be invalidated right up to the last moment.

AMERICAN QUARTERLIES

AMER. GEN. INSURANCE First Quarter	1978 $	1977 $
Revenue	—	—
Net profits	35m.	21m.
Net per share	1.51	0.83

AMERICAN PETROFINA First Quarter	1978 $	1977 $
Revenue	261m.	257m.
Net profits	1m.	8m.
Net per share	0.10	0.76

McDONALDS First Quarter	1978 $	1977 $
Revenue	363m.	299m.
Net profits	31m.	26m.
Net per share	0.77	0.65

Tenneco looking for records

HOUSTON, May 1.

TENNECO the oil, chemicals and packaging concern expects another record year in both sales and earnings, with quarter-to-quarter comparisons more favourable as the year progresses, chairman and chief executive Mr. Wilton E. Scott told the annual meeting.

First quarter earnings rose to $110.14m. from $105.17m. for the same period last year. The per share figure comes out at $1.10 for both quarters as average shares in issue rose to 95m. from 91.4m. Revenue rose 11 per cent. in the latest period to $2.04bn.

Agencies.

U.S. Steel optimism

U.S. Steel Corporation chairman Mr. Edgar B. Speer told the annual meeting that current strong market demand will lead to a profitable second quarter and continued improvement in the second half of the year, Agencies report from Minneapolis. In the second quarter last year, U.S. Steel earned a restated 91 cents a share. Before the annual meeting Mr. Speer said that cost increases which "we are not able to get in increased productivity we're going to have to get through price increases," but it was "difficult to identify what kind of price increase if any, will be required for the balance of this year."

Coca Cola move

Coca Cola chairman Mr. J. Paul Austin says his company is appealing against the recent Federal Trade Commission ruling that some aspects of its U.S. bottler contracts were in violation of the FTC Act, Reuter reports from Wilmington. He told the annual stockholders meeting that the company believes the ruling will ultimately be overturned by the courts.

Shenandoah merger

Union Pacific and Shenandoah Oil say their Boards have agreed in principle to the acquisition by Champlin Petroleum, a wholly-owned subsidiary of Union Pacific, of all assets and business of Shenandoah by Champlin for $40 for each outstanding share of Shenandoah common stock, AP-DJ reports from New York.

Chrysler engine

Chrysler plans to spend $300m. to produce a new small-car engine for use in a number of its vehicles in the early 1980s. The programme includes a major modernisation and retooling of an existing Chrysler engine-manufacturing plant in Trenton, Michigan, AP-DJ reports from Detroit.

SWISS COMPANIES

Nestle plans U.S. sales growth

BY JOHN WICKS

ZURICH, May 1.

A SHARE of 30 per cent. of Nestlés group turnover may eventually be accounted for by North American business. It would be difficult to attain this, Nestlé SA managing director Dr. Arthur Fürer told a Press conference of the parent company, but the undertaking saw it as a long-term target.

In 1977, North American sales totalled about $2bn., equal to 22.2 per cent. of overall group turnover at Sw.Frs.20.09bn. Activities in the United States, where Nestlé operates under its own name and owns companies including the Libby concern and the Stouffer food and catering company, have now been expanded by the take-over of the Fort Worth pharmaceuticals business Alcon Laboratories at the start of this year.

General international investment policy is aimed at expansion after utilisation of existing capacities is at an optimum level. At the same time, the group would divest itself of non-profitable operations, Fürer said.

With regard to the current year's business, Fürer said 1978 had started well, although it was difficult to compare the situation with last year owing to the inflation of turnover in early 1977 due to the jumps in the coffee price. He expressed concern in respect of coffee this year, saying 1978 would be a difficult year in this sector, and said the further development of the Swiss-franc exchange rate would also be a decisive factor.

Caution at Zurich Ins.

THIS YEAR should be a "reasonable" one for Zurich Insurance Company, according to chairman Fritz Gerber, with growth at about the same level as 1977. Last year, gross premium income rose by 15.5 per cent. in local currencies, but at only 2.2 per cent. in terms of Swiss francs, writes John Wicks.

Mr. Gerber pointed out at a Press conference, however, that competition had become stronger in Switzerland and elsewhere. He forecast a "machete battle" on the North American market; although this might not affect 1978 results correspondingly, there would be a drop in profits next year. The United States is the biggest single market for the Zurich concern, accounting for 22.7 per cent. of the parent company's gross premium income last year.

Within the whole Zurich group, major markets in the non-life sector were Switzerland with 19.3 per cent., West Germany with 18.9 per cent. and the United States with 18.8 per cent. of the premium total.

The overall business picture, he said, showed a much more balanced division between types of policy and geographical areas. As an example of this, the importance of car business—formerly responsible for two-thirds of Zurich premiums—and the U.S. market has been considerably reduced.

Problems at Sandoz

THIS YEAR is likely to be a "very difficult" one for Sandoz, the Basle-based chemical group, since no new trend seems likely in the currency sector, writes John Wicks. Speaking at a Press conference of parent company Sandoz AG, chairman Dr. Yves Dunant said that losses in turnover resulting from the unfavourable exchange rate situation had been nearly as high in the first quarter of 1978 alone as the SwFrs.236m. ($122m.) recorded for the whole of the past year.

Group sales showed a drop of 7 per cent. in the first quarter on corresponding 1977 figures. This decline was also due to the high Swiss Franc, since sales in local currencies rose by 12 per cent.

Last year, group turnover rose by 16.2 per cent. to SwFrs.4.77bn., the sharp increase being partly due to the takeover of the U.S. seed company Northrup King. Without consolidation of its sales, the rise was some 6 per cent. over 1977 in terms of Swiss francs, or 11.4 per cent. in local currencies. Although valuation losses resulting from parity changes totalling SwFrs.80m., group net profit jumped by 48.6 per cent. to SwFrs.214m. as part of cashflow up 20.7 per cent. to SwFrs.467m.

The geographical spread of group business has now reached targets foreseen in the current 10-year plan, said Mr. Dunant. The share of the U.S., already by far Sandoz's biggest single national market, rose last year to 25.6 per cent. of group turnover following the Northrup King acquisition. It could rise further in the future in view of a number of investment programmes current in the U.S., chief among them being a dyestuffs plant at Allendale, South Carolina.

Prices up at VW and Audi

By Jonathan Carr

BONN, May 1.

DOMESTIC prices for Volkswagen and Audi vehicles will be raised by an average 3.5 per cent. from to-morrow. Volkswagen gives higher costs since the start of the year as the reason.

The price rise comes little more than one week after a 5.9 per cent. wage increase settlement for the company's West German labour force. The rise is higher than in the metal-working industry as a whole fairly reflecting, in the trade union view, the particularly buoyant performance of the company.

Last year's group net profits totalled DM419m. and the company entered 1978 with a bulging order book. Latest figures show that domestic registrations of Volkswagen and Audi models in the first three months of this year totalled 218,643—of which the Golf (normal and diesel models together) alone accounted for more than 52,000.

With the new price increases, a normal Golf in West Germany will cost DM9,965 instead of DM9,626. An Audi-80 will cost DM12,195 instead of DM11,684. Simultaneously prices for certain luxury additions such as air conditioning are being reduced by between 7 and 23 per cent.

Montedison firm on programme

BY PAUL BETTS

ROME, May 1.

SIG. GIUSEPPE MEDICI, the veteran Christian Democrat chairman of the Milan-based chemicals conglomerate Montedison, reiterated at the company's annual meeting over the weekend the group's intention to launch a long overdue financial and recovery programme.

The company reported record losses last year of L509bn. ($620m.), and the group's accumulated debts totalled more than L3,000bn. Montedison is to write down its capital from L435bn. to L152bn. as a result of these continuing losses, and subsequently effect a substantial capital increase and launch a L175bn. bond issue to consolidate the company's financial position.

The annual meeting, in Milan, however, turned out to be largely disappointing as Sig. Medici said he was still in no position to reveal the long foreshadowed programme for the restructuring of the entire Italian fibres industry. Montefibre, Montedison's main fibres subsidiary, currently represents the single biggest lossmaker of the troubled chemicals conglomerate.

Sig. Medici, a former Senator, claimed the fibres programme would probably be unveiled later this month. But, it is clear that the country's political forces in the wake of the kidnapping of Sig. Aldo Moro, the former Premier, have still not been able to turn their full attention to this pressing problem.

Sig. Medici said Montedison would review all its former investment policies and rationalise a number of sectors.

In the first quarter of this year, there was an improvement in Montedison's group turnover with consolidated sales in March of L500bn., or 15 per cent. and 4 per cent. respectively over the January and February monthly totals this year.

Boliden eyes copper price

BY WILLIAM DULLFORCE

STOCKHOLM, May 1.

BOLIDEN'S hopes of reversing its three-year profits slide in 1978 depend mainly on copper price developments this year, Mr. Aake Palm, managing director of the Swedish metals and chemicals concern, writes in the 1977 shareholders' report. Prices dipped in February but have recovered since and Mr. Palm's belief is that they will continue to climb.

The target set for 1978 is a consolidated operating profit of Kr.100m. ($21.8m.) and pre-tax earnings, including extraordinary items, of Kr.25m., to give a return of Kr.7 a share. The comparable figures for 1977 were an operating loss of Kr.1m., a pre-tax loss of Kr.78m. after a net extraordinary income of Kr.36.7m. and a net loss of Kr.4 a share. This was the result on total sales of Kr.2.8bn. ($608m.). As previously reported the Board proposes to pass the dividend.

Other factors favouring the concern's chances of meeting 1978 targets are the disposal of the Sala mining machinery company to Allis Chalmers and the krona devaluation, the effect of which should start coming through this year. Efforts to reduce the capital tied up in stocks and claims on customers were more effective last year, inventories actually declining Kr.75m. to Kr.649m.

On the negative side untaxed reserves have fallen to Kr.896m. including accumulated extra depreciation of Kr.676m. Despite the postponement of investment projects more long-term debt had to be incurred last year, the equity/debt ratio dipped further and net financial costs showed Kr.113.7m., of which Kr.36.8m. however, arose from exchange losses on the foreign loans. Year-end liquidity was Kr.96m. against Kr.159m. a year earlier.

HONG KONG COMPANIES

International suitor wooing Sun Hung Kai

BY DANIEL NELSON

HONG KONG, May 1.

SUN HUNG KAI Securities requested a suspension of trading in its shares to-day after announcing that a "leading international banking and industrial group" is negotiating for a substantial minority participation in the company.

No other details were given except that discussions would be concluded "shortly." But it is understood that the international company concerned is Banque de Paris et des Pays-Bas.

Trading in Sun Hung Kai shares closed at $HK1.54 on Friday and the deal under discussion reportedly involves the acquisition of a new share issue.

For the year ended last December, Sun Hung Kai Securities achieved a 33 per cent. increase in turnover but a marginal reduction in net earnings from $HK42.12m. in 1976 to $HK41.46m. ($9m.). Group assets rose 28 per cent. to $HK1.05bn. ($228m.) The total dividend was unchanged at 14.5 cents.

Chairman Fung King-Key said at the time the results were announced that the group would be keeping an eye "on possible avenues of expansion."

It has been diversifying its range of financial services, so that it is now virtually a banking operation — when Hong Kong's banking regulations were changed earlier this year there was speculation that the company would apply for a licence.

Of the $HK105.5m. turnover, interest income accounted for $HK69.86m. (up from $HK47.86m.) while brokerage and commission — the company is the Colony's largest stockbroker — fell from $HK14.26m. to $HK1.08m.

Container profits rise

ORIENT Overseas Container (Holdings)—part of the C. Y. Tung Group—announced a consolidated net profit for fiscal 1977 of $HK127.6m. ($27.7m.) compared with $HK103.65m. the previous year, writes Daniel Nelson.

A final dividend of 20.5c will be paid, making a total of 29c (28c in 1976) and there will be a one-for-10 scrip issue involving 21.23m. bonus shares. Operating profits were up 22 per cent. to $HK85.8m., to which is added $HK41.8m., largely profit from the sale of a ship held by a subsidiary as a fixed asset.

Earnings per share were 40c on operating profit and 60c on total profit, compared with 35c and 51c respectively in 1976. The directors say that the results are very satisfactory, particularly as operating profits were hit by typhoons which damaged Kaohsiung and Keelung ports in Taiwan and by a prolonged longshoremen's strike in the United States.

Stanger exit hits C. G. Smith

By Richard Stuart

JOHANNESBURG, May 1.

THE COST of extricating itself from its 50 per cent. involvement in Stanger Pulp and Paper has severe financial consequences for C. G. Smith and Co. The R32.8m. write-offs involved knock nearly 40 per cent. off its net asset value.

C. G. Smith and Co. is the unlisted master company of the Smith Sugar group, which includes two substantial companies quoted on the Johannesburg Stock Exchange: C. G. Smith Investments and C. G. Smith Sugar. All three are linked by circular shareholdings with 42 per cent. of the master company's shares being owned by C. G. Smith Sugar.

As the latter is a subsidiary, these shares have no voting rights and control of the overall group effectively rests with Standard Bank Investment Corporation.

The impact on the two quoted companies is not too severe as one has diversified into textiles and the sugar company recently acquired the Illovo Sugar Company from Tate and Lyle.

In the case of C. G. Smith Sugar, the master company's enforced dividend cut will reduce earnings by around 5 per cent. and less for the investment company. But the main significance of the Stanger pull-out for the quoted companies is that it seriously weakens the balance-sheet ahead of what could be a testing period for sugar companies world-wide.

Smith pulls out of CAIL bid

BY JAMES FORTH

SYDNEY, May 1.

HOWARD SMITH has called off its long-standing $A87m. joint takeover bid with Conzinc Riotinto of Australia (CRA) for New South Wales coal producer, Coal and Allied Industries Ltd. (CAIL).

Directors of the Australian engineering, shipping, coal and sugar group said they had withdrawn from the joint bid with the "greatest reluctance" because they believed CRA would have brought many benefits to the operations of CAIL.

The Smith board had formed the opinion, however, that the NSW State government was opposed to a significant CRA shareholding in CAIL.

The saga began nine months ago when CRA and Smith announced a joint bid for CAIL; Smith was a founding shareholder in CAIL and already held 38 per cent. of the capital. Local mining and industrial group, Peko-Wallsend launched a counter bid which was foiled when Smith lifted its equity to 46 per cent. and CRA obtained a holding of almost 13 per cent. through market purchases.

In October, the NSW Government announced plans to transfer CAIL's major assets—coal deposits at Warkworth—to the state-owned power utility, which was to own at least 51 per cent. of any venture formed to develop the deposits at about the same time the Federal Government refused to allow CRA to maintain a major presence in the $A1bn.-plus Hail Creek coking coal project in Queensland, but approved the joint takeover of CAIL.

The NSW Government's CAIL proposals aroused strong criticism resulting in a set of guidelines for foreign investment in mining in NSW. These were announced in February and required that here must be a minimum Australian equity in new mining ventures of at least 51 per cent.

Where a significant reduction in Australian participation was proposed, the guidelines provided that evidence must be produced to outline the offsetting advantages to the State.

A joint cash takeover by CRA-Smith would have meant a local equity in CAIL of more than 60 per cent. Moreover, CRA had foreshadowed a share-only offer, which would have lifted the local equity in CAIL.

CRA believed the way was clear to proceed with its bid, but when the government was approached, the group had to make a submisison outlining the proposed advantages. This was handed in several weeks ago, but CRA has since been asked for substantial additional information.

After its withdrawal to-day, Smith picked up just over 1m. shares on the market at the proposed offer price—$A3.90 to lift its holding in CAIL to 50 per cent. Smith does not intend to go beyond this level because CAIL owns 20 per cent. of Smith, which it would be forced to sell if it became a subsidiary.

Morgan Guaranty sale

Morgan Guaranty Trust of New York is to sell its 44.1 per cent. interest in Argentina's Banco Frances del Rio de la Plata to a group including two insurers and a manufacturing company. Banco Frances has assets equivalent to about $200m. Morgan declined to disclose the selling price, reports AP-DJ from New York.

Ruling on Tyco

A Federal district court judge in Milwaukee has denied Cutler-Hammer's application for a preliminary injunction prohibiting Tyco Laboratories from purchasing additional shares of Cutler-Hammer common stock, reports AP-DJ from New Hampshire. An application for a preliminary injunction against Koppers also was denied.

Bahrain OBU's in the black

By Doina Thomas

BAHRAIN, May 1.

PROFITS WERE made by almost all the banks operating in the infant Bahrain offshore market during 1977.

There were 33 offshore banking units in business at the end of last year when total assets of the then two-year-old market stood at $US15.7bn.

The three or four loss-making units either were not open for the full 12 months or were affected by non-recurring factors according to the Bahrain Monetary Agency.

A review by the BMA of the 33 banks' audited accounts for the period showed that average net interest earnings were three quarters of a percentage point per annum; fees as commission frequently covered operating costs.

Surprisingly, minimum operating budgets were seen to be around $500,000, about half the figure commonly put forward in past months. Operating costs this year, however, are likely to increase as many banks are expanding.

At the end of March, total offshore assets came to $17.5bn. and a further four OBUs were in business. Of the six other banks licensed but not yet operational, the Banco de Vizcaya and the new Gulf Riyadh bank are expected to open soon.

INTERNATIONAL FINANCIAL AND COMPANY NEWS

EUROBONDS

BY MARY CAMPBELL

Unknowns in D-Mark situation

LAST WEEK closed with the D-mark sector somewhat recovered from the sharp shake-out earlier in the week, and with the dollar sector responding much less badly than might have been feared to interest-rate trends in the United States.

Through most of the week, interest was focused on the D-mark sector where prices fell several points between Monday and Wednesday with the result that new issues opened at discounts of up to 4-5 points from the prices at which they had been offered. On Thursday, prices recovered significantly but the recovery was attributed more to a technical reaction to the sharpness of the falls in the previous three days than to any fundamental revival of demand.

On Friday the cat was thrown among the pigeons by the news that Canada was launching a monumental DM1.5bn. fixed-rate financing. Admittedly "only" DM600m. worth of this is to be sold on the open market—Deutsche Bank, which is managing the operation, is taking the rest entirely on to its own books. But DM600m. is the largest-ever D-mark foreign bond issue and it is hitting the market when it is already down.

This is not to say that the terms are out of line with market conditions: on the contrary, so far as can be seen the issue would have offered a 4½ per cent. coupon if announced a few days earlier. The yield of 4.86 per cent. on a 4¾ per cent. coupon is well in line with current secondary market yields for recently issued top quality bonds. Allowance for the 1½ per cent. selling group discount more than compensates for any shortfall there may be in the nominal yield of the Canadian issue.

There is no doubt that Canada is a very special borrower; and there is no doubt that the yield level is technically correct in relation to market conditions. What is not clear however is the extent to which people want to invest in D-mark denominated paper at all at present. The experience of the dollar sector over the winter months suggested that, however accurately priced and exceptional in quality, large Eurobond issues cannot attract sufficient demand in the face of the expectation that the currency is on the way down.

There are two major unknowns in the present situation. One is the outcome of the Capital Markets Sub-Committee meeting held late on Friday evening. The volume of new issues scheduled for this month at that meeting should become clear later to-day. If the prediction made by some that the volume will be sharply lower than in other recent months is borne out, then this could make room for the Canadian issue.

The other is the extent to which the sharp falls in secondary market prices last week resulted from dealers clearing their books in preparation for the Canadian block-buster. Dealers' reports last week had suggested no more than the usual proportion of professional activity in the D-mark sector. However, some commentators are suggesting that the falls were at least partially due to making room for the Canadian issue and if so one might expect the market to be more receptive to the issue than if the falls were solely a reflection of disenchantment with the D-mark.

The two other tranches of the financing, worth DM900m. in total, are being taken onto Deutsche Bank's own books in their entirety. Both are loans but in the case of the six-year tranche there will be an underlying security of notes.

Both the DM500m. six-year tranche and the DM400m. four-year tranche carry nominal interest rates of 5 per cent. However in the case of the six-year tranche, Canada will receive only 99 per cent. of the face value of the loan to give a yield to Deutsche Bank of 5.2 per cent. while in the case of the four-year tranche it will receive 98¾ per cent. of the face value for a yield of 5.35 per cent.

It is extremely unusual for borrowers to pay more for short term money than for longer term money and the falling yield curve suggested by these two private operations excited considerable comment in the market on Friday. No satisfactory explanation was available.

Dealers said on Friday that the 5.2 per cent. yield on the six year tranche was slightly lower than that available on German government issues of similar maturity but that this was not surprising because external D-mark yields had in general been lower than domestic yields recently. The possibility that Deutsche Bank is to some extent taking in special deposits to fund part of the DM900m. new loans—not a small sum, even for the Deutsche Bank—cannot be ruled out.

Meanwhile the dollar sector remains surprisingly firm in the face of the clear indications that U.S. interest rates are on the way up. Friday was a quiet day on the secondary market, with activity by dealers to cover short positions in advance of the long week-end reportedly lending support to prices. It may be, therefore, that as has happened in the past, the "real response to interest rate developments late last week will appear only this week.

On the other hand the currency situation is pulling in the opposite direction.

The main development in this sector last week concerned the British issue on the New York market. This became a hot issue almost overnight when it became clear that the final pricing would take full account of the falls in secondary market prices during the offering period. Yields were set at significantly higher levels than had been indicated to the market only two days before the pricing.

A major feature of the issue is the extent to which it confirms the geographical structure of demand for dollar denominated paper at present. The full analysis of where the demand came from will not be available for a few weeks, but preliminary indications suggest that between two-thirds and three quarters of the shorter term issue was placed outside the U.S. but only about 10 per cent. of the longer issue.

The shorter term tranche was freed from the syndicate restrictions on Friday. (In the U.S. market, in contrast to European practice, members of the underwriting syndicate are allowed to trade the bonds only within a limited price range until the issue is freed by the managers.) It immediately moved to a premium. It improved further yesterday morning in line with the improvement in the New York market, following reports of an exceptionally low new issue calendar this month.

BONDTRADE INDEX AND YIELD

	April 27		April 21		1978 High	1978 Low
Medium term	99.76	7.85	99.82	7.81	99.84 (19/4)	99.15 (16/2)
Long term	93.95	8.33	94.03	8.32	94.67 (19/4)	93.03 (13/1)

EUROBOND TURNOVER
(nominal value in $m.)

	U.S. dollar bonds last week	U.S. dollar bonds previous week	Other bonds last week	Other bonds previous week
Euroclear	1,578.9	1,059.9	402.8	358.6
Cedel	453.3	296.1	312.0	400.1

CURRENT INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead manager	Offer yield
U.S. DOLLARS							%
‡††United Kingdom	200	1985	7	8½	100	Morgan Stanley	8.68
‡††United Kingdom	150	1993	15	8¾	99	Morgan Stanley	9.20
††Crédit Com. de France	45	1985	7	5½‖	100	CCF	5.83
†**Int. Com. Bk of China	20	1983	5	7½‖	100	Dillon Read	7.38
‡Nordic Investment Bk.	25	1988	¶	8¾	100	CSWW	8.75
CNT (g'teed France)	75	1993	¶	9	*	UBS Deutsche Soc. Gen.	*
‡Norway	250	1983	5	7⅞	99½	Deutsche Bank	8.0
Prov. of Newfoundland	50	1990	¶	9½	*	CCF	*
Isveimer	85	1981	2	8½	100	Dillon Read	8.68
†Bank Handlowy	30	1983-88	—	8‖	*	BNP	*
Dev. Fin. Corp. of N.Z.	20	1983	4.5	8½	*	Citicorp Int.	*
Dev. Fin. Corp. of N.Z.	20	1985	¶	8¾	*	Citicorp Int.	*
‡**Nordic Invest. Bank	10	1988	10	8¾	99½	Daiwa Warburg	8.85
D-MARKS							
‡Elf Aquitaine	100	1988	8.97	5½	98½	Deutsche Bank	5.49
‡§Sankyo Electric	40	1986	8	3½	100	Bay. Vereinsbank	3.79
‡Den Norske Industribank (g'teed Norway)	125	1990	8.5	6	99½	WestLB	6.06
§Seiyu	100	1986	8	3½	100	WestLB	3.79
Eur. Resettlement Fd.	100	1988	8	6½	100	BHF Bank	6.125
‡Canada	600	1983	5	4¾	99½	Deutsche Bank	4.86
GUILDERS							
‡**Oest. Kontrollbk. (g'teed Austria)	75	1985	7	6½	99½	AmRo	6.59
SWISS FRANCS							
‡Arlberg Tunnel	40	1993	n.a.	4	100	Swiss Bank Corp.	4.0
‡Newag	70	1993	n.a.	4	99.8	Schweiz. Volksbank	4.1
KUWAITI DINARS							
Finnish Export Credit (g'teed Finland)	5	1983	5	7½	*	KIC	*
UNITS OF ACCOUNT							
‡City of Copenhagen	30	1993	¶	7	100.25	Kredietbank Lux.	6.97

* Not yet priced ‡ Final terms ** Placement † Floating rate note ‖ Minimum § Convertible
†† Registered with U.S. Securities and Exchange Commission ¶ Purchase Fund
Note: Yields are calculated on AIBD basis.

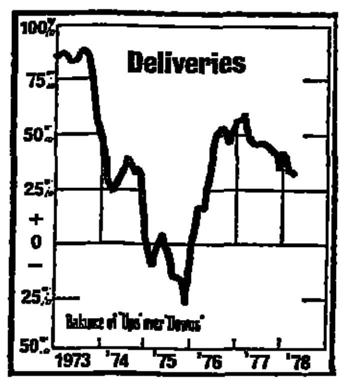
FT Monthly Survey of Business Opinion

STATISTICAL MATERIAL © TAYLOR NELSON GROUP

GENERAL OUTLOOK

Fall in optimism

IN GENERAL companies said the Budget was much as they expected and a "non-event." It was insufficient to arrest the decline in business confidence from the high level of the autumn. More specifically the engineering and brewers and distillers sectors were both less inclined to say they were "more optimistic" than they were last December.



There was still considerable confidence about export markets. In line with last month, three-quarters of companies believed their exports would be higher in the next 12 months. Paper and connected industries were more likely than before to say that exports would remain the same, but this was offset by a reduction in the number of engineering companies saying they would be lower. However, both these changes were slight.

There has been no improvement in the rate of increase in new deliveries, which was unchanged on last month. A rather more pessimistic outlook among the engineering and paper and connected industries was offset by improved sales by brewers and distillers.

GENERAL BUSINESS SITUATION

Are you more or less optimistic about your company's prospects than you were four months ago?	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
More optimistic	37	38	41	47	7	46	55
Neutral	38	38	39	36	60	54	32
Less optimistic	25	22	18	15	33	—	13
No answer	—	2	2	2	—	—	—

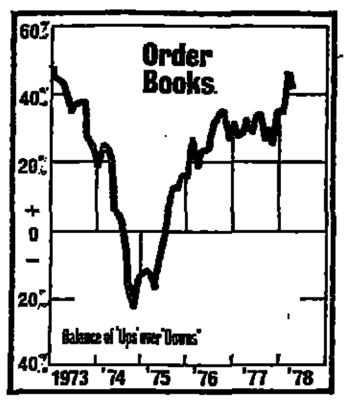
EXPORT PROSPECTS (Weighted by exports)

Over the next 12 months exports will be:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Higher	75	77	75	79	69	74	69
Same	13	9	8	10	25	26	30
Lower	9	11	14	11	6	—	—
Don't know	3	3	3	—	—	—	1

ORDERS AND OUTPUT

Expectations reduced

THE TREND in new orders declined slightly due to a fall in two of the three sectors covered this month, namely engineering and paper and connected industries. The improvement among brewers and distillers was not enough to offset this.



The expectations for total sales in the next year were slightly lower, with the median expected increase in turnover during the latest period at 4.7 per cent. compared with 4.8 per cent. in the last survey.

Both the engineering and the brewing and distilling sectors were less inclined to say their order books would grow over the next four months than previously.

The engineering sector was rather more hopeful of increasing production over the next 12 months than it was last December, but this was more than balanced by a contrary view in the paper and connected industries.

Most companies did not feel that the Budget had given enough of a stimulus to affect their outlook in general. Although some felt it might have a slight impact on home trade others felt its indecisive nature warranted a reduction of expectations.

NEW ORDERS

The trend of new orders in the last 4 months is:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Up	49	53	48	48	2	63	15
Same	28	29	28	20	34	1	20
Down	11	10	12	11	62	—	12
No answer	12	8	12	21	2	36	53

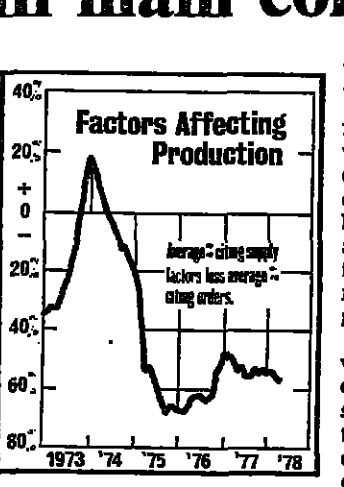
PRODUCTION/SALES TURNOVER

Those expecting production/sales turnover in the next 12 months to:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Rise over 20%	5	6	4	5	—	—	—
Rise 15-19%	4	4	7	9	—	—	—
Rise 10-14%	12	9	11	18	41	10	9
Rise 5-9%	23	25	27	16	33	19	29
About the same	48	48	45	46	7	71	62
Fall 5-9%	3	2	3	3	17	—	—
No comment	5	6	3	3	2	—	—

CAPACITY AND STOCKS

Demand still main constraint

THE LEVEL of economic activity continues to be constrained by demand rather than supply factors. The number of respondents who said they were working below planned capacity levels increased to slightly more than a third, and more companies felt their level of stocks was too high.



There has been little change in the number of mentions of different factors affecting production. There was an increase in mentions of manual labour and a significant drop in the number of times labour disputes were brought up as a factor.

The engineering sector was less inclined to expect stocks to increase over the next twelve months and the paper and connected industries took a similar view for raw materials and components. Although this was offset by the opposite view from brewers and distillers, the overall effect was to push the index for expectations of raw materials and manufactured goods downwards.

On the labour side, there were some complaints from engineering companies over a shortage of skilled labour due to the pay policy and of the difficulty of getting overseas executives to return to the U.K.

STOCKS

Raw materials and components over the next 12 months will:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Increase	40	45	44	43	3	36	7
Stay about the same	42	40	47	48	45	64	85
Decrease	16	13	8	4	50	—	8
No comments	2	2	1	5	2	—	—
Manufactured goods over the next 12 months will:							
Increase	30	32	35	31	—	25	24
Stay about the same	38	41	42	43	—	75	53
Decrease	10	10	3	2	—	—	—
No comments	22	17	20	24	100	—	23

FACTORS CURRENTLY AFFECTING PRODUCTION

	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Home orders	85	86	85	82	100	92	65
Export orders	63	61	60	56	76	89	82
Executive staff	29	30	34	30	59	44	43
Skilled factory staff	43	42	46	39	64	36	75
Manual Labour	17	13	11	7	38	36	16
Components	4	5	7	8	—	—	—
Raw materials	3	5	9	9	2	—	—
Production capacity (plant)	14	15	11	11	—	17	8
Others	9	7	12	7	—	37	—
Labour disputes	30	37	38	36	38	—	59
No answer/no factor	4	5	4	5	—	—	—

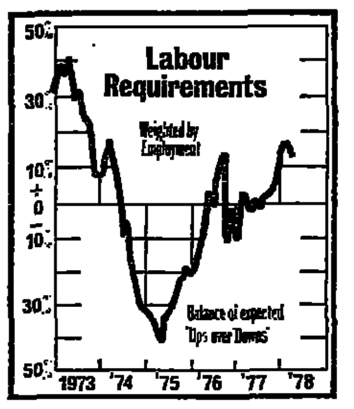
CAPACITY WORKING

	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Above target capacity	9	10	9	12	—	8	8
Planned output	56	57	60	55	83	55	52
Below target capacity	34	32	31	32	17	37	40
No answer	1	1	—	1	—	—	—

INVESTMENT AND LABOUR

Job prospects dull

THE LIMITED pick-up in economic activity indicated by the survey is reflected in the cautious view of future labour needs taken by industry. The proportion of companies expecting a rise in their labour force has fallen back slightly so that this index has declined. All three sectors interviewed this month were more inclined to mention the potential cost of redundancy payments and the difficulty of recruiting staff with suitable skills as factors affecting the number of employees.



There has been virtually no change in the indicator of expected capital spending during the next 12 months; a greater degree of confidence by the engineering and the paper and connected sectors was offset by a more pessimistic outlook on the part of brewers and distillers. The Budget had little effect on companies' spending plans. There has been a slight increase in the number of companies saying they will require more outside finance for capital spending during the next 12 months though a third of the sample still do not expect to require any such finance.

LABOUR REQUIREMENTS (Weighted by employment)

Those expecting their labour force over the next 12 months to:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Increase	28	30	27	25	—	16	10
Stay about the same	57	56	62	64	91	36	60
Decrease	15	14	11	11	9	48	30
No comment	—	—	—	1	—	—	—

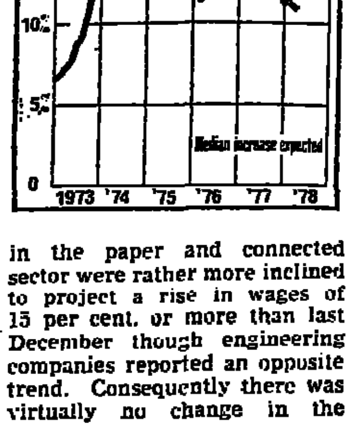
CAPITAL INVESTMENT (Weighted by capital expenditure)

Those expecting capital expenditure over the next 12 months to:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Increase in volume	55	53	51	56	44	49	60
Increase in value but not in volume	6	6	12	11	8	1	22
Stay about the same	15	18	17	16	48	1	10
Decrease	24	23	18	14	—	49	8
No comment	—	—	2	3	—	—	—

COSTS AND PROFIT MARGINS

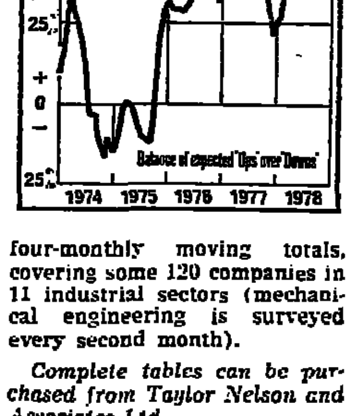
Inflation rate stable

INDUSTRY believes that there will not be a significant improvement in the rate of price inflation during the next 12 months, though no real deterioration either. Companies in the paper and connected sector were rather more inclined to project a rise in wages of 15 per cent. or more than last December though engineering companies reported an opposite trend. Consequently there was virtually no change in the median expected rise in wages at 12.7 per cent., while the projected increase in unit costs remained around 11 per cent.



Both the engineering and paper and connected industries were less inclined to expect increases in prices of 15 per cent. or over, though this was offset by the price expectations of two major brewing and distilling groups. So the median expected rise remained unchanged at around 10½ per cent.

All three sectors were less hopeful of increasing their profit margins during the next year than they had been last December with complaints about heavy competition both at home and overseas.



These surveys, which are carried out for the Financial Times by the Taylor Nelson Group, are based upon extensive interviews with top executives about their companies' situation and prospects.

Three industries and some 30 companies are covered in turn every month. They are drawn from a sample based upon the FT-Actuaries Index, which accounts for about 60 per cent. of the turnover of all public industrial companies. The weighting is by market capitalisation save where an alternative method of weighing is specified. The all-industry figures are four-monthly moving totals, covering some 120 companies in 11 industrial sectors (mechanical engineering is surveyed every second month).

Complete tables can be purchased from Taylor Nelson and Associates Ltd.

COSTS

Wages rise by:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
5-9%	9	10	5	6	—	1	4
10-14%	67	64	74	74	93	98	41
15-19%	13	11	10	11	7	1	52
20-24%	2	2	—	—	—	—	—
No answer	9	13	11	9	—	—	3
Unit cost rise by:							
0-4%	1	1	3	5	—	—	—
5-9%	38	36	24	22	55	18	5
10-14%	49	48	60	60	26	74	75
15-19%	5	7	6	5	17	—	8
20-24%	4	3	—	—	—	—	—
Same	—	—	1	2	—	—	4
Decrease	—	—	1	1	—	—	—
No answer	3	5	5	5	2	8	8

PROFIT MARGINS

Those expecting profit margins over the next 12 months to:	4 monthly moving total: Jan.-Apr. %	Dec.-Mar. %	Nov.-Feb. %	Oct.-Jan. %	April 1978: Eng'g. %	Brewers %	Paper %
Improve	23	26	24	22	—	27	13
Remain the same	41	41	43	55	43	36	51
Contract	33	29	29	21	57	37	36
No comment	3	4	4	2	—	—	—

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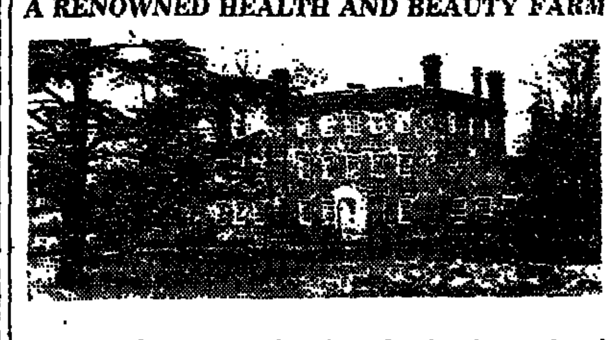

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24" DIAMETER HORIZONTAL BULL BLOCK By Farmer Norton (1972).	0902 42541/2/3 Telex 336414
ROTARY SWAGING MACHINE by Farmer Norton (1972).	0902 42541/2/3 Telex 336414
SLITTING LINE 500 mm x 3 mm x 3 ton capacity. **TWO VARIABLE SPEED FOUR HIGH ROLLING MILLS** Ex. 6.50" wide razor blade srtip production.	0902 42541/2/3 Telex 336414
MODERN USED ROLLING MILLS, wire rod and tube drawing plant—*roll forming machines*—slitting—flattening and cut-to-length lines—*cold saws—presses—guillotines, etc.*	0902 42541/2/3 Telex 336414
1974 FULLY AUTOMATED COLD SAW by Noble & Lund with batch control.	0902 42541/2/3 Telex 336414
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1965 TREBLE DRAFT GRAVITY WIRE DRAWING machine by Farmer Norton 27"—29"—31" diameter drawblocks.	0902 42541/2/3 Telex 336414
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3 CWT MASSEY FORGING HAMMER —pneumatic single blow.	0902 42541/2/3 Telex 336414
9 ROLL FLATTENING MACHINE 1,700 mm wide.	0902 42541/2/3 Telex 336414
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LUMSDEN VERT. SPINDLE GRINDER. 91MLT. Retractable Table 36" dia. EXCELLENT.	01-928 3131 Telex 261771
ANKERWERK 400 TON INJECTION MOULDER. Reconditioned.	01-928 3131 Telex 261771
BUSCH AUTOMATIC KEYWAY MILLER Automatic cycle. Hydraulic. EXCELLENT.	01-928 3131 Telex 261771
BLANCHARD No. 11 GRINDER. Mag. table 17" dia. REBUILT. Very accurate.	01-928 3131 Telex 261771
HME 70 TONS PRESS DCP3. Bed 36" x 34". *stroke 6".* EXCELLENT.	01-928 3131 Telex 261771
HEY No. 3 FACING & CENTREING. Between centres 35". Reconditioned.	01-928 3131 Telex 261771
SCHOEMANN 1,600 TON ALUMINIUM SHEATHING PRESS of horizontal type, plus all accessories. Good operational condition.	061-223 4464 Telex 669533
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LEGAL NOTICES

No. 001284 of 1978

In the HIGH COURT OF JUSTICE Chancery Division Companies Court. In the Matter of ELMCHESTER (LONDON) LIMITED and in the Matter of The Com*panies Act, 1948.*

NOTICE IS HEREBY GIVEN that a Petition for the winding up of the above-named Company by the High Court of Justice was on the 20th day of April 1978, presented to the said Court by RENATO CELIN whose registered office is at 36100-Vicenza (Italia) Via Del Cavalcavia, 60-62, Italy, manufacturer of jewellery, and that the said Petition is directed to be heard before the Court sitting at the Royal Courts of Justice, Strand, London, WC2A 2LL on the 15th day of May 1978, and any creditor or contributory of the said Company desirous to support or oppose the making of an Order on the said Petition may appear at the time of hearing in person or by his Counsel for that purpose; and a copy of the Petition will be furnished by the undersigned to any creditor or contributory of the said Company requiring such copy on payment of the regulated charge for the same.

SILVERMANS,
5 Stratford Place,
London W1N 0DX
Solicitors for the Petitioner.

NOTE—Any person who intends to appear on the *hearing of the said Petition* must serve on, or send by post to, the above-named notice in writing of his *intention so to do. The notice must state* the name and address of the person, or, if a firm, the name and address of the firm and must be *signed by the person* or firm, or his or their solicitor (if any) and must be served, or, if posted, must be sent by post *in sufficient time to reach* the above-named not later than four o'clock in the afternoon of the 12th day of May 1978.

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In order to exercise such option Bonds *must be deposited (together with all* unmatured coupons) with one of the Paying Agents on or before 11th May, 1978, together with written instructions that the payment of principal and premium be made in Deutsche Mark.

Holders are advised that it would be prejudicial to them not to elect to receive Deutsche Mark.

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WALL STREET + OVERSEAS MARKETS

Up 6 despite adverse economic news

BY OUR WALL STREET CORRESPONDENT

NEW YORK, May 1.

BRUSHING ASIDE some disappointing economic news, Wall Street made further headway this morning in active trading.

The Dow Jones Industrial Average registered a fresh improvement of 5.80 at 843.12 at 1 p.m., while the NYSE All Common Index advanced 40 cents more to $54.30 and rises led declines by an eight-to-five margin. Turnover came to 23.15m. shares at the 1 p.m. calculation.

Initial hesitation by the stock market was attributed to an unexpected 0.1 per cent. decline in the March index of leading economic indicators after a revised 0.5 per cent. gain the previous month, and the increasing number of Prime Rate increases.

However, many market participants are beginning to interpret the uptrend in interest rates as an inflation-fighting device, analysts commented.

Teledyne, which jumped nearly $10 last Friday, rose $7¼ more to $103¾—the company said it knows of no reason to account for the rise in the price of its stock.

On the merger front, Seven-Up, an over-the-counter stock, advanced $8 to $88⅝ bid in response to an acquisition offer from Philip Morris, which put on $¾ to $65.

Kennecott Copper, fighting an apparent take-over attempt by Curtiss-Wright, put on ⅛ to $24⅞, but Curtiss-Wright fell $⅞ to $18⅞.

THE AMERICAN SE Market Value Index moved ahead 0.71 further to 137.07 at 1 p.m. on volume of 2.70m. shares.

NYSE, shed $¼ to $49⅞—the two companies have agreed to merge.

Closing prices and market reports were not available for this edition.

OTHER MARKETS

CANADA—Markets presented a mixed appearance at mid-session yesterday following a moderate business. The Toronto Composite Index was 1.2 easier at 1,080.3 at noon, although rises outpaced declines on the Toronto Exchange by 132 to 121. The four most heavily-weighted indices fell, but Real Estates climbed 11¼ points on index and five other sub-groups made small gains. Oils and Gas retreated 6.1 to 1,369.3.

In Montreal, Papers lost 0.72 to 112.09 and Utilities 0.40 to 168.51.

TOKYO—Stocks closed mixed with an easier bias yesterday after profit-taking in some populars pared early gains. Trading volume was a moderate 280m. shares, compared with 340m. last Friday. The Nikkei-Dow Jones Average shed 1.25 to 5,532.93, but the Tokyo SE index was 0.31 up at 410.18.

Some export-orientated shares improved initially, helped by last Friday's Wall Street rise, but failed to gather momentum. Most investors were sitting on the sidelines ahead of the Tokyo national holidays on Wednesday and Friday of this week and also awaiting the results of the Fukuda-Carter summit talks in the U.S. this week.

Shindengen fell Y50 to Y1,000 and Maruzen Y34 to Y820 after the Stock Exchange raised their margin requirement ratios.

Film makers, such as Fuji Photo Film and Konishiroku Photo, weakened on an announcement that Nagase, a sales agent of Eastman Kodak Film, of the U.S., has lowered Kodak colour film prices by an average 5.7 per cent.

However, some low-priced Textiles, Chemicals and Machines were slightly firmer. Motors were higher on expectations that the U.S. and Japan will not consider a further restriction on car exports from Japan to the U.S. in the summit talks.

AUSTRALIA — Markets again closed on a mixed note following light trading.

The release by the Federal Government of $A280m. of Statutory Reserve Deposits (SRDs) into the banking system to head off a threatened tight liquidity situation, helped to improve the general undertone but Banks reacted on the news with BNS Wales declining 6 cents to $A5.38.

BHP rose another 4 cents to $A6.58, although the rest of the Industrial leaders drifted aimlessly.

Some of the higher-yielding second-ranking Industrials firmed on the belief that the Government plans to pull interest rates back a little with the May loan, while Finance Houses, Properties and Retailers also attracted some support.

Most of the Mining favourites of last week fared poorly.

Among Uraniums, Kathleen Investments came back 6 cents to $A1.70 and Queensland Mines 5 cents to $A2.20, but Pancontinental were 60 cents higher at $A11.20.

Coal and Allied fell 60 cents to $A3.30 on news that Howard Smith has withdrawn from a joint take-over bid initiated by CRA.

Atherton Antimony were sharply lower after the Sydney Stock Exchange asked for more details on the assay reports.

Renison Tin shed 10 cents to $A6.40 and Hamersley 3 cents to $A2.05, but Central Norseman put on 20 cents to $A7.40.

Among Oils, Weeks Petroleum featured strongly with a rise of 11 cents to $A1.66, but Ampol Petroleum lost 2 cents to 81 cents.

HONG KONG — Share prices were inclined to go higher on mainly local buying, with interest centred in second-line issues. The Hang Seng index put on 1.60 more to a new 1978 high of 461.83.

Swire Pacific rose 10 cents to $HK7.15, Hong Kong Land 5 cents to $HK8, and Jardine Matheson 40 cents to $HK13.70 ex the dividend. However, Hong Kong Bank declined 20 cents to $HK15.50.

Elsewhere, Stelux advanced 12.5 cents to $HK2.475, Hong Kong Hotels 30 cents to $HK13.60, and Cross Harbour Tunnel 10 cents to $HK11.60, but Hong Kong Telephone retreated 40 cents to $HK29.20.

JOHANNESBURG—Gold shares partially recovered from initial dullness to end with marginal net losses following a very quiet business.

Trading was inhibited by the absence of bullion indications and lack of interest on account of the May Day holiday in Europe.

Mining Financials recorded mixed movements.

Other Metals and Minerals were mostly higher in slack trading. Copper issues ZCI and Messina rose a cent and 2 cents to 18 cents and R1.47 respectively, but Asbestos stock Msauli lost 5 cents to R1.75.

The Industrial market continued firmly on sporadic institutional demand. Barlow Rand advanced 7 cents to R3.70 and AECI 5 cents to R2.55.

COPENHAGEN—Stocks moved irregularly in moderate dealings. Banks and Shippings were lower, but communications gained ground. Commodities, Insurances and Industrials were mixed. Nordisk Kabel were quoted ex dividend at Kr.240. Burmeister and Wain were a dull spot at Kr.420, down 5.

The following stock markets were closed yesterday for the May Day holiday:—

United Kingdom, Paris, Germany, Brussels, Milan, Switzerland, Oslo, Vienna, Stockholm and Brazil.

The Amsterdam Bourse was closed for the Queen's Birthday.

Indices

NEW YORK -DOW JONES

	Apr. 28	Apr. 27	Apr. 26	Apr. 25	Apr. 24	Apr. 21	1978 High	1978 Low	Since compilat'n High	Since compilat'n Low
Industrial	837.32	828.92	836.97	833.59	826.06	812.80	837.32 (28/4)	742.12 (28/2)	1051.70 (11/1/73)	41.22 (2/7/32)
H'me Bnds*	89.01	89.01	89.12	89.05	89.15	89.20	90.88 (4/1)	89.01 (27/4)	—	—
Transport	224.58	222.34	224.34	225.66	222.38	220.59	224.58 (28/4)	199.31 (9/1)	279.88 (7/2/69)	13.23 (8/7/32)
Utilities	106.58	105.89	106.12	106.70	106.97	106.77	110.98 (3/1)	102.84 (22/2)	163.32 (20/4/69)	10.58 (28/4/42)
Trading vol. 000's	32,850	55,470	44,430	55,800	34,510	51,540	—	—	—	—

* Basis of index changed from August 24.

	Apr. 21	Apr. 14	Apr. 7	Year ago (approx.)
Ind. div. yield %	5.75	5.86	6.06	4.60

STANDARD AND POORS

	Apr. 28	Apr. 27	Apr. 26	Apr. 25	Apr. 24	Apr. 21	1978 High	1978 Low	Since Compilat'n High	Since Compilat'n Low
Industrials	106.94	105.71	106.80	106.55	105.55	103.82	106.94 (28/4)	96.52 (6/3)	134.64 (11/1/73)	3.52 (30/6/32)
Composite	96.83	95.86	96.82	96.64	95.77	94.34	96.83 (28/4)	86.90 (6/3)	125.85 (11/1/73)	4.40 (1/6/32)

	Apr. 19	Apr. 12	Apr. 5	Year ago (approx.)
Ind. div. yield %	5.14	5.36	5.39	4.23
Ind. P/E Ratio	8.94	8.56	8.48	10.41
Long Govt. Bond yield	8.30	8.34	8.33	7.62

N.Y.S.E. ALL COMMON

Apr. 28	Apr. 27	Apr. 26	Apr. 25	1978 High	1978 Low
53.90	53.40	53.88	53.81	53.98 (28/4)	48.37 (6/3)

Rises and Falls

	Apr. 28	Apr. 27	Apr. 26
Issues traded	1,919	1,908	1,926
Rises	929	441	756
Falls	537	1,045	753
Unchanged	452	422	417
New Highs	—	442	113
New Lows	—	1,041	33

MONTREAL		Apr. 28	Apr. 27	Apr. 26	Apr. 25	1978 High	1978 Low
	Industrial	178.85	177.99	(u)	179.47	181.47 (17/4)	162.30 (16/2)
	Combined	184.64	185.82	(u)	186.79	187.83 (17/4)	170.82 (30/1)
TORONTO	Composite	1081.5	1080.7	1089.5	1088.4	1091.4 (17/4)	998.2 (30/1)
JOHANNESBURG	Gold	195.6	195.0	188.6	184.1	218.7 (1/2)	183.0 (20/4)
	Industrials	216.2	215.5	214.1	212.8	216.2 (28/4)	194.2 (13/3)

	May 1	Pre-vious	1978 High	1978 Low
Australia (*)	480.26	479.98	480.26 (1/5)	441.43 (1/60)
Belgium (‖)	(e)	(e)	100.99 (25/4)	90.211 (12/3)
Denmark (**)	94.48	94.49	98.13 (9/1)	94.00 (6/2)
France (††)	(e)	66.6	68.7 (26.4)	47.5 (3/2)
Germany (‡‡)	(e)	769.2	812.7 (10/2)	765.8 (25/4)
Holland (§§)	(e)	78.7	82.1 (10.2)	76.0 (4/4)
Hong Kong (¶¶)	461.83	460.23	461.83 (1/5)	383.44 (13/1)
Italy (‖‖)	(e)	60.08	63.66 (6/3)	56.46 (10/1)
Japan (a)	410.18	409.87	416.11 (19/4)	364.04 (4/1)
Singapore (b)	(e)	304.49	304.49 (28/4)	262.0 (1/60)

	May 1	Pre-vious	1978 High	1978 Low
Spain (d)	(e)	100.64	100.64 (28/4)	87.88 (17/5)
Sweden (e)	(e)	387.69	387.59 (28/4)	325.74 (3/1)
Switzerl'd (f)	(e)	283.9	296.36 (14/4)	279.0 (25/4)

Indices and base dates (all base values 100 except NYSE All Common — 50 Standards and Poors — 10 and Toronto 300-1,000, the last named based on 1975). † Excluding bonds. ‡ 400 Industrials. § 400 Inds., 40 Utilities, 40 Finance and 20 Transport. (¶) Sydney All Ord. (‖) Belgian SE 31/12/63 (**) Copenhagen SE 1/1/73. (††) Paris Bourse 1961. (‡‡) Commerzbank Dec., 1953. (§§) Amsterdam, Industrial 1970. (¶¶) Hang Seng Bank 31/7/64. (‖‖) Milan 2/1/73. (a) Tokyo New SE 4/1/68. (b) Straits Times 1966. (c) Closed. (d) Madrid SE 30/12/77 (e) Stockholm Industrial 1/1/58. (f) Swiss Bank Corp. (u) Unavailable.

NOTES: Overseas prices shown below exclude $ premium. Belgian dividends are after withholding tax.
◆ DM50 denom. unless otherwise stated. ♥ Ptas.500 denom. unless otherwise stated. ♣ Kr.100 denom. unless otherwise stated. ф Frs.500 denom. and Bearer shares unless otherwise stated. ¶ Yen 50 denom. unless otherwise stated. § Price at time of suspension. a Florins. b Schillings. c Cents. d Dividend after pending rights and/or scrip issue. e Per share. f Francs. g Gross. div. %. h Assumed dividend after scrip and/or rights issue. k After local taxes. m % tax free. n Francs: including Unilac div. p Nom. q Share split. s Div. and yield exclude special payment. t Indicated div. u Unofficial trading. v Minority holders only. y Merger pending. * Asked. † Bid. § Traded. ‡ Seller. z Assumed. xr Ex rights. xd Ex dividend. xc Ex scrip issue. xa Ex all. Δ Interim since increased.

OVERSEAS SHARE INFORMATION

Inv. $ Prem. $2.60 to £—110% (109½%)
Effective rate (1.8245) 47⅝% (47⅜%)

NEW YORK

Stock	April 28	April 27
Abbott Labs	59⅞	59¼
[illegible]	[illegible]	[illegible]

Stock	April 28	April 27
Corning Glass	52⅞	51⅝
CPC Int'n'tional	46¾	47
Crane	29⅛	28⅛
Crocker Nat.	27¾	27¾
[illegible]	[illegible]	[illegible]

Stock	April 28	April 27
Johns Manville	31⅛	30⅞
Johnson Johnson	76½	74⅛
Johnson Control.	30¼	30
Joy Manufactur'g	34¾	34⅜
[illegible]	[illegible]	[illegible]

Stock	April 28	April 27
Revlon	45	44⅜
Reynolds Metals	31⅜	31¼
Reynolds R. J.	58⅝	58½
Rich'son Merrell	22¼	22⅜
[illegible]	[illegible]	[illegible]

Stock	April 28	April 27
Woolworth	20½	20⅜
Wyly	4	4
Xerox	49¼	48½
Zapata	16⅛	16¼
Zenith Radio	14¾	14¾
U.S. Treas 4% 1980	†94½	†94½
U.S.Treas 4¾% 75/85	†81⅛	†81⅛
U.S. 90 Day bills	6.34%	6.38%

CANADA

Stock	April 28	April 27
[illegible]	[illegible]	[illegible]

GERMANY ◆

April 28	Prices Dm.	+ or —	Div. %	Yld. %
AEG	86.4	+0.6	—	—
Allianz Versich	452	+3	18	2.0
BMW	228.5	+3.5	20	4.4
BASF	134.1	—0.8	12	4.5
Bayer	135.8	—0.3	16	—
Bayer. Hypo	277.6	—1.4	18	3.2
Bayer. Vereinsbk.	300	+3	18	3.0
CibaInt. Neth.wrts	165	—3	—	—
Commerzbank	223.5	+1.0	17	7.6
Cont Gummi	73.0	+0.8	—	—
Daimler Benz	295.5	—1.5	19	3.4
Degussa	245.0xd	.....	17	3.5
Demag	156	.....	14	4.5
Deutsche Bank	291.8	+1.8	18	3.1
Dresdner Bank	241.0xd	+0.4	18	3.7
Dyckerhoff Zemt.	140.5	+1.5	4	1.4
Gutehoffnung	190	.....	12	3.2
Hapag Lloyd	115	+2	12	5.2
Harpener	276	+1	9	3.3
Hoechst	131.7	+0.4	16	—
Hoesch	46.6	+0.1	4	4.4
Horten	121	.....	10	4.2
Kali und Salz	135	+4	9	3.3
Karstadt	296.5	—2.5	20	3.4
Kaufhof	204	—1	20	5.0
Klockner DM100	89.5	.....	—	—
KHD	172.5	+0.5	12	3.5
Krupp	94	—1	—	—
Linde	235.5	—1.0	16	3.4
Lowenbrau 100	1,500xd	—2	25	8.3
Lufthansa	106	+1	7	3.3
MAN	175.5	—1.3	12	3.4
Mannesmann	162.2	—0.3	14	4.3
Metallges	206.5	.....	10	2.4
Munchener Rück.	550	+25	18	1.6
Neckermann	114	.....	—	—
Preussag DM 100	108.8	+0.8	—	—
Rhein West. Elect.	180.5	.....	25	6.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AMSTERDAM

April 28	Price Fls.	+ or —	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COPENHAGEN ♣

May 1	Price Kroner	+ or —	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

VIENNA

April 28	Price %	+ or —	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TOKYO ¶

April 28	*Prices Yen	+ or —	Div. %	Yld. %
Asahi Glass	343	—4	14	2.0
Canon	498	—7	12	1.2
Casio	690	—10	25	2.1
Chinon	373	+4	20	2.7
Dai Nippon Print	550	.....	18	1.6
Fuji Photo	586	—4	15	1.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source Nikko Securities, Tokyo

BRUSSELS/LUXEMBOURG

April 28	Price Frs.	+ or —	Div. Frs. Net	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SWITZERLAND ●

April 28	Price Frs.	+ or —	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MILAN

April 28	Price Lire	+ or —	Div. Lire	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AUSTRALIA

May 1	Aust. $	+ or —
ACMIL (25 cent)	†0.70	+0.01
Acrow Australia	†0.80	—0.01
Allied Mnt-Trdg. Indus $1	†2.30	+0.04
Ampol Exploration	†1.41	+0.01
Ampol Petroleum	†0.81	—0.02
[illegible]	[illegible]	[illegible]

PARIS

April 28	Price Frs.	+ or —	Div. Frs.	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

STOCKHOLM

April 28	Price Kronor	+ or —	Div. Kr.	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U.S. COMMODITIES

Copper prices move up

NEW YORK, April 28.

COPPER rallied on commission house stop-loss buying. Precious metals eased on speculative liquidation ahead of the week-end. Coffee closed unchanged in mixed activity. Cocoa eased on disappointed long liquidation being absorbed by trade buying. Sugar was slightly higher on week-end booksquaring. Soyabeans closed higher on commercial pricing in the oil, Bache comments.

Cocoa—May 149.60 (152.05), July 148.70 (149.65), Sept. 143.60, Dec. 137.60, March 133.35, May 130.35, July 128.00. Sales: 961 lots.

Coffee—"C" Contract: May 174.75 (174.50), July 154.00-154.25 (154.05), Sept. 138.40, Dec. 125.25, March 118.10-118.75, May 114.50-115.00, July 113.50-113.90, Sept. 110.00-113.00. Sales: 370 lots.

Copper—May 59.10 (58.10), June 59.60 (58.60), July 60.10, Sept. 61.20, Dec. 62.70, Jan. 63.20, March 64.20, May 65.20, July 66.20, Sept. 67.20, Dec. 68.70, Jan. 69.20, March 70.20. Sales: 6,080 lots.

Cotton—No. 2: May 57.00-57.15 (56.90), July 58.60-58.74 (58.67), Oct. 60.60, Dec. 61.50-61.55, March 62.60, May 63.35-63.55, July 63.70 bid, Oct. 63.50 bid. Sales: 425,000 bales.

*Gold—May 169.90 (171.00), June 170.60 (171.70), July 171.60, Aug. 172.70, Oct. 174.80, Dec. 177.00, Feb. 179.30, April 181.30, June 184.40, Aug. 187.90, Oct. 189.60, Dec. 182.30, Feb. 195.00. Sales: 6,000 lots.

†Lard—Chicago loose not available (25.00 nom.). NY prime steam 23.00 asked (23.50 asked).

†Maize—May 251-250¾ (248½), July 246¾-246½ (246), Sept. 244¼-244, Dec. 245½-245, March 252, May 256.

§Platinum—July 212.30-212.70 (212.70), Oct. 214.20-214.40 (215.20), Jan. 216.90-217.10, April 219.70-219.90, July 222.50-222.70. Sales: 785 lots.

¶Silver—May 497.10 (497.90), June 499.50 (500.50), July 503.00, Sept. 510.30, Dec. 521.90, Jan. 525.90, March 533.90, May 542.10, July 550.50, Sept. 559.00, Dec. 572.00, Jan. 576.40, March 585.30. Sales: 10,900 lots.

Soyabeans—May 721-723 (786), July 702-703 (782), Aug. 677, Sept. 640, Nov. 609-611, Jan. 618½, March 623, May 625-626.

‖Soyabean Meal—May 178.00 (174.30), July 177.60-177.80 (177.10), Aug. 176.70-176.60, Sept. 171.00, Oct. 165.00, Dec. 163.50-164.00, Jan. 164.50-165.50, March 168.00, May 169.00.

...Soyabean Oil—May 26.45-26.50 (26.60), July 26.45-26.50 (25.87), Aug. 25.35-25.40, Sept. 24.20, Oct. 23.10, Dec. 22.40-22.55, Jan. 22.05, March 21.90-21.95, May 21.55-21.60.

All British commodity markets remained closed yesterday for the May Day holiday.

Sugar—No. 11: May 7.47 (7.53), July 7.90-7.91 (7.86), Sept. 8.15, Oct. 8.24-8.25, Jan. 8.50-8.55, March 9.04, May 9.18-9.21, July 9.34, Sept. 9.40-9.46. Sales: 3,050 lots.

Tin—507.00-517.00 asked (510.00-520.00 asked).

**Wheat—May 309-309½ (303½), July 312-311½ (307½), Sept. 315½-315, Dec. 321-320, March 323-333½, May 322.

WINNIPEG, April 28. ††Rye—May 105.50 bid (103.00 bid), July 104.20 (103.40 bid), Oct. 105.40 asked, Nov. 105.00 bid, Dec. 105.50 bid.

††Oats—May 82.30 bid (81.10 bid), July 78.90 (77.40-77.60), Oct. 76.50 bid, Dec. 74.30 bid, March 74.30.

‡‡Barley—May 77.00 (76.80), July 78.20 bid (77.30), Oct. 78.00, Dec. 77.10 bid, March 76.50.

§§Flaxseed—May 250.30 bid (244.10 bid), July 254.40 bid (249.00 bid), Oct. 254.80 asked, Nov. 252.30 bid, Dec. 253.50.

¶¶Wheat—SCWRS 13.5 per cent. protein content cif St. Lawrence 163.54 (162.21).

All cents per pound ex-warehouse unless otherwise stated. * $'s per troy ounce—100-ounce lots. † Chicago loose $'s per 100 lbs—Dept. of Agriculture prices previous day. Prime steam fob NY bulk tank cars. ‡ Cents per 56-lb bushel ex-warehouse, 5,000-bushel lots. § $'s per troy ounce for 50-ounce units of 99.9 per cent. purity delivered NY. ¶ Cents per troy ounce ex-warehouse. ‖ New "B" contract in $'s a short ton for bulk lots of 100 short tons delivered fob cars Chicago, Toledo, St. Louis and Alton. ** Cents per 60-lb bushel in store. †† Cents per 24-lb bushel. ‡‡ Cents per 48-lb bushel ex-warehouse. §§ Cents per 56-lb bushel ex-warehouse, 1,000-bushel lots. ¶¶ $C per tonne.

FINANCIAL TIMES

Apr. 28	Apr. 27	Month ago	Year ago
238.94	238.94	238.61	272.90

(Base: July 1, 1952=100)

REUTER'S

April 28	April 27	Month ago	Year ago
1455.3	1457.1	1434.6	1714.4

(Base: September 18, 1931=100)

DOW JONES

Dow Jones	April 28	April 27	Month ago	Year ago
Spot	358.73	358.11	364.06	430.84
Futures	349.32	349.32	353.38	409.60

(Average 1924-25-26=100)

MOODY'S

Moody's	April 28	April 27	Month ago	Year ago
Sple Commdty	900.2	900.0	908.8	[illegible]

(December 31, 1931=100)

Germany 'ahead in Investment'

FINANCIAL TIMES REPORTER

CLOSER INVOLVEMENT between the financial institutions and the company sector, and a diversification of building society investment outside the housing field, are among the main recommendations of a report sponsored by the Anglo-German Foundation for the Study of Industrial Society.

The 370-page study finds that West Germany's post-war policies on saving and investment have been far more successful than those of the U.K.

Their success has arisen largely from Germany's economic policies and the consistency with which they have been applied.

Britain now needs to increase the level of investment in manufacturing industry. If this is to be achieved, a consistent policy is needed from the Government and the banks as well as industry itself.

A key issue, the authors argue, will be whether the financial institutions are prepared to invest more of their funds long-term in loans to manufacturing companies, and whether in return the companies will be prepared to relinquish some of their managerial independence.

While pointing out that savings in the U.K. have fallen behind the levels recorded in Germany, the report is more concerned with their distribution.

It finds that the government and household sectors in the U.K. have been high borrowers, while the industrial sector has low borrowings.

The authors' recommendation include the provision of more long-term loans to industry by the financial institutions, and an increase in the level of gearing in the company sector which is regarded as acceptable to investors.

In exchange, they argue, company Boards "would have to give up, or at least share, some of their power and be willing to receive increasing interference and representation" from banks and institutions.

† *Savings and Investment in the U.K. and West Germany, by J. M. Samuels and P. C. McMahon, Anglo-German Foundation for the Study of Industrial Society.*

HONG KONG

Hong Kong$	April 28	April 27
Govt. Loan 1948	—	—
Amalgamated Rubber	2.50	1.25
Bowsters	—	13.00
China Light & Power	21.90	21.40
City Hotels	—	†32.00
Cosmopolitan Properties	1.60	1.65
Cross Harbour Tunnel	11.50	11.40
H. Asia Navigation	4.25	4.10
Hong Kong Aircraft	63.5	†68.00
Hong Kong Electric	4.475	4.225
Hong Kong Kowloon Wharf	18.60	17.30
Hong Kong Land Invest.	—	7.25
Hong Kong Shanghai Bank	15.70	14.80
Hong Kong Shanghai Hotls	—	13.20
Hutchison Whampoa	4.475	4.175
Inter. Pacific Securities	10.50	10.20
Jardine Matheson	13.30	12.80
Jardine Secs	6.75	6.20
Rubber	3.40	2.40
Sime Darby	8.40	8.00
Southn. Pac. Prop.	0.48	†0.48
Southsea Textile	—	—
Swire Pacific A	7.05	6.65
Textile Alliance	—	—
TextileCorp of Hong Kong	—	—
Wheelock Marden	2.40	2.205
Wheelock Maritime	3.15	3.05
Winsor Industrial	2.35	2.15
Wyncor	—	—

xd Ex-dividend. † Buyer. ‡ Seller.

OSLO

April 28	Price Kroner	+ or —	Div. %	Yld. %
Bergen Bank	92.5	.....	9	[illegible]
Borregaard	60.0	+2.5	4	[illegible]
Creditbank	108.25	+0.25	11	[illegible]
Kosmos	240xd	+10	20	[illegible]
Kreditkassen	10.650	—1.25	11	[illegible]
Norsk Hydrokr.80	191.25	—1.50	12	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BRAZIL

	Price Cruz	+ or —	Div.	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Vol. Cr.75.2m. Shares 32.3m.
Source: Rio de Janeiro SE.

JOHANNESBURG

MINES

May 1	Rand	+ or —
[illegible]	[illegible]	[illegible]

INDUSTRIALS

	Rand	+ or —
[illegible]	[illegible]	[illegible]

Securities Rand $US0.74½
(Discount of 35.4 per cent.)

SPAIN ♥

April 28	Per cent.	+ or —
[illegible]	[illegible]	[illegible]

INSURANCE, PROPERTY, BONDS

AUTHORISED UNIT TRUSTS

OFFSHORE AND OVERSEAS FUNDS

Crusader Insurance Co. Ltd.
Vincula House, Tower Pl., EC3. 01-626 8031
Gth. Prop. April 4 | 71.7 | 78.8 | ..... | —

Eagle Star Insur/Midland Ass.
1, Threadneedle St., EC2. 01-588 1212
Eagle Mid. Units | 49.8 | 51.7 | +0.3 | 6.09

Equity & Law Life Ass. Soc. Ltd.♥
Amersham Road, High Wycombe 0494 33377

Equity Fd	109.2	114.9	+0.2	—
Property Fd	104.9	110.4	.....	—
Fixed Interest F.	105.3	110.8	+0.1	—
Gtd. Deposit Fd.	98.3	103.4	.....	—
Mixed Fd.	107.1	112.7	+0.2	—

NEL Pensions Ltd.
Milton Court, Dorking, Surrey. 5911

Nelex Eq. Cap.	77.4	81.4	.....	—
Nelex Eq. Accum.	109.6	115.3	+1.5	—
Nelex Money Cap.	60.8	64.0	.....	—
Nelex Mon. Acc.	64.1	67.4	.....	—
Nelex Gth Inc Acc.	47.4	49.8	.....	—
Nelex Gth Inc Cap.	47.9	50.4	.....	—

Next sub. day May 25.

Nel Mxd. Fd. Cap.	47.7	50.2	.....	—
Nel Mxd. Fd. Acc.	47.9	50.4	.....	—

For New Court Property see under Rothschild Asset Management

FINANCIAL TIMES STOCK INDICES

—	Apr. 28	Apr. 27	Apr. 26	Apr. 25	Apr. 24	Apr. 21	A year ago
Government Secs.	71.28	71.22	71.24	71.47	71.88	71.57	69.31
Fixed Interest	74.57	74.33	74.47	74.79	75.06	74.98	69.56
Industrial Ordinary	465.7	467.8	457.8	460.7	460.4	455.0	432.8
Gold Mines	147.7	145.2	141.4	135.3	136.2	136.8	115.5
Ord. Div. Yield	5.77	5.75	5.87	5.83	5.85	5.91	5.31
Earnings Y'ld%(full)(*)	17.39	17.10	17.46	17.29	17.34	17.53	15.97
P/E Ratio (net)(*†)	7.69	7.86	7.70	7.78	7.76	7.67	8.23
Dealings marked	5,406	4,727	5,110	4,944	4,382	4,299	6,399
Equity turnover £m	—	82.58	66.70	70.50	54.13	50.46	67.61
Equity bargains total	—	16,415	14,098	13,757	12,632	11,278	16,498

10 a.m. 469.1. 11 a.m. 467.6. Noon 466.9. 1 p.m. 465.9.
2 p.m. 465.7. 3 p.m. 465.6.

* Based on 52 per cent. corporation tax. Nil=7.55.

Latest Index 01-246 8026.

Basis 100 Govt. Secs. 15/10/26. Fixed Int. 1928. Ind. Ord. 1/7/35. Gold Mines 12/9/55. SE Activity July-Dec. 1942.

HIGHS AND LOWS

—	1978 High	1978 Low	Since Compilation High	Since Compilation Low
Govt. Secs.	78.58 (3/1)	71.22 (27/4)	127.4 (9/1/35)	49.18 (3/1/75)
Fixed Int.	81.27 (9/1)	74.33 (27/4)	150.4 (28/11/47)	50.53 (3/1/75)
Ind. Ord.	497.3 (6/1)	433.4 (2/3)	549.2 (14/9/77)	49.4 (26/6/40)
Gold Mines	168.6 (6/3)	130.3 (6/1)	442.3 (22/5/75)	43.5 (26/10/71)

S.E. ACTIVITY

	Apr. 28	Apr. 27
—Daily		
Gilt-Edged	152.9	144.9
Industries	198.0	164.3
Speculative	33.9	46.4
Totals	123.0	107.5
5-day Av'rage		
Gilt-Edged	164.2	168.0
Industrials	169.1	166.4
Speculative	38.9	38.6
Total	111.6	106.8

FT—ACTUARIES INDICES

—	April 28	April 27	April 26	April 25	April 24	April 21	A Year ago
Industrial Group	205.17	202.80	199.61	200.86	200.37	198.05	172.12
500 Shares	225.35	224.94	221.55	222.48	221.71	219.17	198.09
Div. Yield pc	5.58	5.59	5.67	5.64	5.66	5.72	5.59
P/E Ratio (net)	7.93	7.92	7.83	7.86	7.84	7.74	9.35
All Shares	208.45	207.90	204.94	206.07	205.42	203.39	181.21

Keyselex Japan | £11.53 | 12.60 | -0.24 | —
Cent. Assets Cap. | £132.35 | | +0.02 | .....

10a, Boulevard Royal, Luxembourg
Worldwide Gth Fd | $US13.48 | | -0.05 | —

NOTES

Prices do not include $ premium, except where indicated $, and are in pence unless otherwise indicated. Yields % (shown in last column) allow for all buying expenses. a Offered prices include all expenses. b To-day's prices. c Yield based on offer price. d Estimated. g To-day's opening price. h Distribution free of U.K. taxes. p Periodic premium insurance plans. s Single premium insurance. x Offered price includes all expenses except agent's commission. y Offered price includes all expenses if bought through managers. z Previous day's price. ♥ Net of tax on realised capital gains unless indicated by ♦. ¶ Guernsey gross. ‡ Suspended. ♦ Yield before Jersey tax. † Ex-subdivision.

CORAL INDEX: Close 463-468

INSURANCE BASE RATES

† Property Growth .... 8 %
† Vanbrugh Guaranteed .... 8 %
† Address shown under Insurance and Property Bond Table.

FT SHARE INFORMATION SERVICE

**BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
14J	14Ju	Treasury 10½pc '78‡‡	100¾	8.12	10.43	7.21
26M	26S	Exch. 5pc '76-78‡‡	99	17.2	5.05	7.47
9M	9S	Treasury 11½pc '79‡‡	102¼	31.1	11.23	8.42
17M	17S	Treasury 3pc '79‡‡	95½	8.2	3.14	6.44
26M	26S	Electric 4¼pc '74-79	96¼	17.2	4.42	7.08
1M	1N	Treasury 10½pc '79‡‡	101¾xd	28.3	10.31	9.15
15M	15N	Electric 3½pc '76-79	95⅞xd	10.4	3.65	6.35
3M	3S	Treasury 9pc 1980‡‡	99⅜	25.1	9.06	9.35
14M	14N	Treasury 9½pc '80‡‡	100¼xd	7.4	9.47	9.34
15J	15D	Treasury 3½pc '77-80	93¼	8.11	3.75	6.97
15J	15D	Funding 5¼pc '78-80‡‡	95⅛	8.11	5.52	7.78
25M	25N	Exchequer 13pc 1980‡‡	106¼xd	18.4	12.22	10.11
15J	15Ja	Treasury 11½pc 1981‡‡	102⅞	9.12	11.18	10.23
15F	15A	Treasury 3½pc 1979-81	89½	9.1	3.91	7.74
1A	1O	Treasury 9¾pc 1981‡‡	99⅛	23.2	9.84	10.09
12J	12D	Exch. 8¼pc 1981	95⅛	—	8.67	10.10
4F	4A	Exch. 9½pc 1981	97¾	29.12	9.72	10.32
21F	21A	Exch. 3pc 1981	87	16.1	3.45	7.51
17M	17N	Treas. Variable '81‡‡	96¾xd	10.4	6.38	8.72
23M	23N	Exch. 12¾pc 1981‡‡	106¼xd	17.4	11.99	10.56
15J	15Ja	Treas. 8½pc '80-82‡‡	95	9.12	8.95	10.13
15F	15A	Treasury 3pc '82‡‡	84½	9.1	3.55	7.79
16M	16S	Treasury 14pc '82‡‡	110¼	7.2	12.70	10.68
15J	15D	Treas. Variable '82‡‡	95⅜	8.11	7.81	8.75
5J	5Ju	Treasury 8¼pc '82	92⅝	1.12	8.91	10.47
22M	22S	Exch. 9¼pc 1982	95⅛	13.2	9.72	10.65
5Ju	5J	Exch. 8¾pc 1983	93¼	—	9.38	10.60
21F	21A	Exch 3pc '83	81⅛	16.1	3.70	7.77
17M	17S	Treasury 12pc 1983‡‡	105⅛	8.2	11.41	10.61

Five to Fifteen Years

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
18J	18Ju	Treasury 9½pc '83	96¾	12.12	9.83	10.75
15J	15Ja	Funding 5½pc '82-84‡‡	84½	9.12	6.64	9.44
10J	10Ju	Treasury 8¾pc '84-86‡‡	92	5.12	9.51	10.46
1M	1N	Funding 6½pc '85-87‡‡	79¼	28.3	8.28	10.06
26J	26Ja	Treasury 7¾pc '85-88‡‡	83¾	20.12	9.48	10.83
1J	1Ju	Transport 3pc '78-88	62¼	25.11	4.90	8.86
15A	15O	Treasury 5pc '86-89	65⅞	9.3	7.62	10.13
15J	15Ja	Treasury 13pc 1990‡‡	107⅞	9.12	12.49	12.32
15J	15D	Treasury 8¼ 87 90‡‡	82⅝	8.11	10.38	11.41
10J	10Ja	Treasury 11¾pc 1991	99	5.12	12.32	12.47
5A	5O	Funding 5¾pc '87-91‡‡	65⅛	1.3	8.89	10.90
22J	22Ja	Treasury 12¾pc '92‡‡	104½	16.12	12.62	12.58
21F	21A	Treasury 10pc 1992	87	16.1	11.75	12.25
25F	25A	Exch. 12¼pc '92	99⅞	19.1	12.54	12.60

Over Fifteen Years

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
14J	14Ju	Treasury 12½pc '93‡‡	102¼	8.12	12.62	12.63
15M	15S	Funding 6pc 1993‡‡	62½	6.2	9.72	11.30
23M	23N	Treasury 13¾pc 1993‡‡	105½xd	17.4	12.94	12.81
1M	1S	Treasury 14½pc '94‡‡	113½	23.1	13.06	12.84
22F	22A	Exch. 12½pc 1994	100½	16.1	12.74	12.77
17M	17N	Treasury 9pc '94‡‡	78½xd	10.4	11.47	12.03
25Ju	25Ja	Treasury 12pc '95	98½	19.12	12.59	12.67
1M	1N	Gas 3pc '90/95	44⅞xd	28.3	6.69	8.67
21Ja	21J	Exch. 10¼pc 1995	86⅝	—	12.14	12.46
15M	15N	Treasury 12¾pc '95‡‡	99⅝xd	10.4	12.74	12.74
15M	15S	Treasury 9pc '92/96‡‡	78¼	6.2	11.68	12.17
3M	3N	Treasury 15¼pc '96‡‡	115¾xd	28.3	13.17	12.96
15M	15N	Exchequer 13¼pc '96‡‡	102¾xd	10.4	12.84	12.79
1A	1O	Redemption 3pc 1986-96	44	23.2	6.86	9.54
22J	22Ja	Treasury 13¾pc '97‡‡	106⅝	16.12	12.86	12.81
21F	21A	Exchequer 10½pc 1997	87⅛	16.1	12.30	12.53
1M	1S	Treasury 8¾pc 1997‡‡	76¼	23.1	11.70	12.15
1M	1N	Treasury 6¾pc '95-98‡‡	61¼	28.3	11.02	11.86
30M	30S	Treas. 15½pc '98‡‡	119½	21.2	13.12	12.94
30M	30N	Exch. 12pc '98 (£30pd)	29¼	—	12.60	12.66
15J	15Ja	Treasury 9½pc 1999‡‡	82½	9.12	11.92	12.20
19M	19N	Treasury 10½pc 1999	84½xd	—	12.35	12.54
14J	14Ju	Funding 3½pc '99-04	37⅝	8.12	9.57	10.83
5A	5O	Treasury 8pc '02-06‡‡	69	1.3	11.69	11.90
10M	10S	Treasury 5½pc '08-12‡‡	49	1.2	11.41	11.66
26J	26Ja	Treasury 7¾pc '12-15‡‡	68	20.12	11.75	11.83

Undated

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
1F	1A	Consols 4pc	33⅛	20.12	12.35	—
1J	1D	War Loan 3½pc‡‡	32⅝xd	25.4	10.63	—
1A	1O	Conv. 3½pc '61 Aft.	35⅛	23.2	10.05	—
5A	5O	Treasury 3pc '66 Aft.	24⅛	1.3	12.42	—
5Ja.A.Ju.O.		Consols 2½pc	21	1.3	12.01	—
1A	1O	Treasury 2½pc	20¼	23.2	12.48	—

**INTERNATIONAL BANK

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
15F	15A	5pc Stock 77-82	83	6.1	6.82	9.94

**CORPORATION LOANS

[illegible]

COMMONWEALTH & AFRICAN LOANS

[illegible]

LOANS

Public Board and Ind.

[illegible]

Financial

[illegible]

FOREIGN BONDS & RAILS

[illegible]

U.S. $ & DM prices exclude inv. $ premium

AMERICANS

[illegible]

AMERICANS—Continued

[illegible]

S.E. List Premium 47¾% (based on $US1.8832 per £)

Conversion factor 0.6766 (0.6820)

CANADIANS

[illegible]

S.E. List Premium 47¾% (based on $2.0735 per £)

BANKS AND HIRE PURCHASE

[illegible]

Hire Purchase, etc.

[illegible]

BEERS, WINES AND SPIRITS

[illegible]

BUILDING INDUSTRY, TIMBER AND ROADS

[illegible]

BUILDING INDUSTRY—Cont.

[illegible]

CHEMICALS, PLASTICS

[illegible]

CINEMAS, THEATRES AND TV

[illegible]

DRAPERY AND STORES

[illegible]

DRAPERY AND STORES—Cont.

[illegible]

ELECTRICAL AND RADIO

[illegible]

ENGINEERING MACHINE TOOLS

[illegible]

ENGINEERING—Continued

[illegible]

FOOD, GROCERIES, ETC.

[illegible]

HOTELS AND CATERERS

[illegible]

HOTELS—Continued

[illegible]

INDUSTRIALS (Miscel.)

[illegible]

هكذا مت الأجل

هكذامن الأصل

INDUSTRIALS—Continued

INSURANCE—Continued

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING ADVERTISING

PROPERTY

INSURANCE

PROPERTY—Continued

SHIPBUILDERS, REPAIRERS

SHIPPING

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRUSTS, FINANCE, LAND

Investment Trusts

INV. TRUSTS—Continued

Finance, Land, etc.

FINANCE, LAND—Continued

OILS

OVERSEAS TRADERS

RUBBERS AND SISALS

TEAS

India and Bangladesh

Sri Lanka

Africa

MINES

CENTRAL RAND

EASTERN RAND

FAR WEST RAND

O.F.S.

FINANCE

DIAMOND AND PLATINUM

MINES—Continued

CENTRAL AFRICAN

AUSTRALIAN

TINS

COPPER

MISCELLANEOUS

Dividends Paid	Stock	Price	Last xd	Div Net	Cvr	Yld Gr's
—	Burma Mines 17½p.	13	575	—	—	—
Aug. Feb.	Cons. Murch. 10c	245	3.1	Q30c	2.6	7.3
—	Northgate C$1	350	375	—	—	—
Jan. June	R.T.Z.	200	31.10	9.5	2.8	7.4
—	Sabina Inds. C$1	33	—	—	—	—
—	Tara Expln. $1	930	—	—	—	—
Nov. July	Tehidy Minerals 10p	43	17.10	1.33	ϕ	4.8
October	Yukon Cons. C$1	154	15.9	Q7c	ϕ	2.2

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on the basis of net distribution; bracketed figures indicate 10 per cent. or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution. Yields are based on middle prices, are gross, adjusted to ACT of 34 per cent. and allow for value of declared distributions and rights. Securities with denominations other than sterling are quoted inclusive of the investment dollar premium.

- ▲ Sterling denominated securities which include investment dollar premium.
- ● "Tap" Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ϕ Figures or report awaited.
- †† Unlisted security.
- ∗ Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ** Free of Stamp Duty.
- ♦ Merger bid or reorganisation in progress.
- ♣ Not comparable.
- ♦ Same interim: reduced final and/or reduced earnings indicated.
- § Forecast dividend: cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ★ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ▼ Excluding a final dividend declaration.
- ✦ Regional price.
- ǁ No par value

a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital; cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. r Australian currency. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend, cover based on previous year's earnings. v Tax free up to 30p in the £. w Yield allows for currency clause. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. D Cover and P/E ratio exclude profits of U.K. aerospace subsidiaries. E Issue price. F Dividend and yield based on prospectus or other official estimates for 1977-78. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1976-77. K Figures based on prospectus or other official estimates for 1978. M Dividend and yield based on prospectus or other official estimates for 1978. N Dividend and yield based on prospectus or other official estimates for 1979. P Dividend and yield based on prospectus or other official estimates for 1977. Q Gross. T Figures assumed. U No significant Corporation Tax payable. Z Dividend total to date. §§ Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

"Recent Issues" and "Rights" Page 31

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £400 per annum for each security

REGIONAL MARKETS

The following is a selection of London quotations of shares previously listed only in regional markets. Prices of Irish issues, most of which are not officially listed in London, are as quoted on the Irish exchange.

IRISH

OPTIONS

3-month Call Rates

FINANCIAL TIMES
Tuesday May 2 1978

Battle for $275m. Japanese uranium contract

BY DOUGLAS RAMSEY

TOKYO, May 1.

TWO EUROPEAN groups are vying for a $275m. (£152.8m.) contract to supply Japan's nuclear power industry with a safety net of enriched uranium between now and 1983.

Japanese officials anticipate heavy pressure from European Governments on behalf of their respective uranium-enrichment companies. "We expect to sign a contract this year, but all the utilities hope it will not be mingled with European attempts to force a reduction in Japan's trade surplus with the EEC," said the Ministry for International Trade and Industry.

URENCO, a British-Dutch-German consortium based on centrifuge technology, and EURODIF, a French-led consortium using gas diffusion technology, are competing for the contract to supply enrichment services.

URENCO has made a formal offer to supply Japanese utilities with the services together with a third or more of the natural uranium required to be enriched.

Negotiations with EURODIF are progressing on what an official called a similar offer.

The supply of natural uranium in an enrichment contract would be a major departure from past practice whereby Japanese utilities have had to secure uranium on the world market independently from enrichment contracts.

Although Japan's enriched-uranium needs are secured to 1990, the Ministry for International Trade and Industry and Nuclear Utilities wants to build up a stockpile of enriched uranium.

Under discussion is a plan to build up stocks to the equivalent of a year's consumption. Officials estimate at 3,000 tonnes of separative work—one tonne equals 1,000 separative work units—the yearly refuelling needs of the industry by the target date of 1983

At present enrichment prices of about $80 a unit, the value of the enrichment contract alone would be about $240m. The remainder would go to pay for uranium supplies agreed in the contract.

First approach

Thus, the stockpile contract would come on top of existing supply contracts signed by Japanese utilities. Among these contracts, all but roughly a third of supplies in the 1980s will come from the United States. The French-led consortium agreed in 1973 to deliver 1,000 tonnes of units a year between 1981 and 1990, thus making up for the gap between U.S. supplies and Japanese needs.

Since the precedent of buying European has been set, each European consortium appears convinced that it can win the stockpile contract from the Americans. According to reliable sources, URENCO first approached the Japanese utilities in mid-1977, and in April the joint British-Dutch-German developers of a centrifuge enrichment process made a final offer to the Japanese side. EURODIF threw its hat into the ring earlier this year.

Japanese sources are reluctant to divulge the contents of each offer, but they say that both consortia have offered to supply part of the uranium needed for enrichment.

Until now, Japanese utilities have had to conclude purchase, exploration and development contracts for uranium independently, and they seem keen to ensure a substantial portion of their needs under the cover of enrichment contracts.

Defence chief's China speech angers Left

BY OUR FOREIGN STAFF

A STORM of protest from Labour Left-wingers, and astonishment in Whitehall, were the immediate reactions yesterday to the reported statement by Marshall of the RAF Sir Neil Cameron, Chief of Defence Staff, that Britain and China had a common enemy, the Soviet Union.

Sir Neil, who is on a goodwill visit to China, made his remarks to officers of China's Sixth Tank Division in Peking.

Dr. David Owen, the Foreign Secretary, said he did not think Sir Neil's remarks would isolate the Soviet Union; there was no suggestion that the Air Marshal's visit was at the expense of good relations with Russia.

"You need to put Air Marshal Cameron's visit in the context of a deliberate attempt to improve relations with China, but, as I said in the House, not deliberately and provocatively at the expense of our realtionship with the Soviet Union."

Speaking in Birmingham before addressing a May Day rally, he said the whole purpose of NATO defence strategy was to deter any hostilities in Western Europe by the Soviet Union and Warsaw Pact countries.

Asked if Sir Neil could have chosen his words more carefully, Dr. Owen said: "I have not seen his exact words and I think that is an issue for the Secretary of Defence.

"The Air Marshal must be responsible for what he says. He is a senior and respected figure.

"He went there to discuss aspects of defence co-operation, and I am sure that is what he intends to do."

Whitehall was making urgent efforts last night to clarify what Sir Neil had said. Officials were taken aback by his remarks, which may have foreign policy implications he had not intended.

Invitation

His trip, at the invitation of the Chinese, was not aimed at promoting specific new co-operation agreements, nor is he there as a salesman, it was stressed in London. The trip was intended as a goodwill gesture in the context of Peking's broader efforts to improve contact with the West.

Mr. Norman Atkinson, the Labour Party treasurer, has called for Sir Neil's resignation.

"His remarks are a direct contradiction of what Foreign Secretary Dr. David Owen said in the Commons last week. I intend to press for a Parliamentary statement from the Foreign Secretary and an explanation from Defence Secretary Mr. Fred Mulley," he said.

The Right wing of the Labour Party immediately sprang to Sir Neil's defence, accusing the Left of "verbal treachery."

Mr. Douglas Eden, spokesman for the Social Democratic Alliance, said it was time the Left wing said frankly which side it was on. Sir Neil had stated only what every ordinary man and woman in this country knew to be true.

Sir Ian Gilmour, the Conservative Defence spokesman, said he thought Sir Neil's remarks were "an extremely sensible thing to say." Sir Ian said that if Sir Neil were trying to sell the Harrier jump jet aircraft—"as I hope he was"—then he welcomed such co-operation.

Whitehall denied that he was there to discuss sales of the aircraft.

Details of speech Page 2

U.S. opposes Begin West Bank plan Egypt told

By David Bell

WASHINGTON, May 1.

MR. MENAHEM BEGIN, Israeli Prime Minister, arrived in Washington to-day as the State Department sought to reassure Egypt that the U.S. does not consider his West Bank peace plan a good basis for a settlement and has not altered its policy.

The Department moved quickly last night and again to-day, to quiet Egyptian concern after an interview which President Carter gave to the New York Times Syndication Service.

The President was quoted as saying that Israel would not be obliged to withdraw from all occupied territories and that a final settlement "will be based substantially" on Mr. Begin's proposals.

Officials said to-day that they had told President Sadat that Mr. Carter was not signalling any change in policy and that the remarks had been quoted out of context.

The President had no intention of using a Press interview to indicate a "major policy shift." The U.S. had consistently oposed an independent Palestinian State on the West Bank.

Mr. Begin's arrival in Washington coincides with the growing debate on the Administration's plan to sell advanced aircraft to Saudi Arabia and Egypt as well as Israel.

Mr. Cyrus Vance, U.S. Secretary of State, and Mr. Moshe Dayan, Israeli Foreign Minister, differed publicly about this scheme again yesterday, amid indications that the U.S. Administration is irritated that senior Israeli officials are "interfering" in the issue by lobbying directly on Capitol Hill.

Roger Matthews reports from Cairo: Mr. Hermann Eilts, U.S. Ambassador to Egypt, visited the Foreign Ministry here again, in a further effort to soothe ruffled feelings provoked by President Carter's remarks.

A Foreign Ministry statement issued yesterday expressed "deep concern" about Mr. Carter's remarks.

Moves to defuse Rhodesia row

BY TONY HAWKINS

SALISBURY, May 1.

RHODESIA'S transitional Government closed ranks to-day in an effort to defuse the embarrassing split that has developed over Friday's summary dismissal of Mr. Byron Hove, the black joint Minister of Justice.

The four-man Executive Council met for an hour this morning, and though no statement was issued ,it is understood that the general mood of the meeting was one of "constructive compromise."

The meeting agreed to establish a committee to look into the affair.

Apparently not only Mr. Hove's comments, which sparked off the whole crisis, but also what many people here see as the almost unbelievable over-reaction of Mr. Hilary Squires, the white joint Minister for Justice, Gen. Peter Watts, the Chief of Combined Operations, and Mr. Peter Allaum, Commissioner of the Police.

It is understood that all four members of the Executive Council accepted that the affair could not be allowed to wreck the entire enterprise.

Accordingly, the meeting had fallen back on the tried procedure of appointing a committee charged with finding some face-saving formula.

The row started last month when Mr. Hove, who returned from London to take up a post as Justice Minister of the Interim Government, called for "a situation in which the laws reflect the broad interests of the country."

He criticised the part of the agreement that provides the judiciary with security of tenure, saying that "to retain the judiciary as it stands will not be compatible with the new situation."

He also spoke out against the fact that blacks do not hold senior posts in the police, and that black policemen are paid less than their white counterparts.

"I am aware that in this country the police force has been used as an instrument to enforce Rhodesian Front laws, which it has done enthusiastically."

Mr. Hove's remarks brought an angry reaction from the country's whites, and the four man Executive Council—with Bishop Muzorewa, leader of the United African National Council (UANC), the man who appointed Mr. Hove, in full agreement, issued a public reprimand and demanded a public retraction.

Mr. Hove refused, and on Friday, the Executive fired him.

However, Bishop Muzorewa issued a statement in the early hours of Saturday morning dissociating himself from the Executive's decision, but the crisis deepened when two black members of the Executive, Chief Chirau and the Rev. Ndabaningi Sithole, insisted that the Bishop, while having spoken against the decision, eventually agreed to it.

The Bishop says that the Executive had demanded an answer from Mr. Hove by 2 o'clock on Friday afternoon, and that he had expected the Council to reconvene

But Executive Council sources say it was left that if Mr. Hove did not withdraw as instructed then he would be relieved of his duties. The Bishop does not accept this interpretation.

Bishop Muzorewa's UANC Central Executive met on Sunday and said that it was reconsidering its participation in the Salisbury agreement.

The committee called for Mr. Hove's reinstatement, saying that his dismissal had been unconstitutional. This was a reference to the fact that in terms of the Salisbury Agreement all the decisions of the Executive, have to be unanimous, and Bishop Muzorewa says he did not agree

Sonatrach negotiates $1bn. worth of loans

BY FRANCIS GHILÈS

ALGERIA'S state oil and gas company, Sonatrach, is negotiating nearly $1bn. (£546m.) worth of loans from international banks. There are four disinct operations: two of $250m. each, one of $350m. and a fourth of $170m.

The smallest of the four operations has been completed. Terms are not known but the guarantor is understood to be the Banque Algérienne de Developpment, the only Algerian bank entitled to provide a sovereign guarantee.

One of the $250m. loans, also to be guaranteed by the bank is being arranged by six banks: Citicorp, which is also administering the loan, Bank of America, Arab Petroleum Investments Corporation, Bankers Trust, Bank of Montreal and Continental Illinois.

Other terms include a maturity of seven years and a grace period of three and a-half years.

The second $250m. loan will also be for seven years and the margin will also be $1\frac{3}{8}$ per cent. The lead manager is Toronto Dominion and the guarantor will be Banque Extérieure d'Algérie.

The fourth and largest operation, which is for the Trans Mediterranean pipeline, will include an element of export credits from Italy.

F.T. BUSINESS OPINION SURVEY
Industrial optimism continues to fade

Financial Times Reporter

INDUSTRIAL optimism has continued to fade, according to the latest Financial Times survey of Business Opinion published this morning. There is still no evidence that companies believe a significant recovery in the U.K. economy is now occurring or is likely in the next few months.

The Budget had done little to alter attitudes. The general feeling was that it might cause additional inflation, but that the spending incentive was necessary. The possibility of a further Budget in the summer increased inflationary fears.

More than half the companies were interviewed in the remainder of the week after the Budget. The others, interviewed either on Budget day itself or the preceding Monday, were nearly all contacted after the Chancellor's speech to see if their views had changed as a result.

The replies on the more specific points show that demand rather than supply remains the main constraint on the level of economic activity.

Both order books and order expectations fell slightly. On the brighter side there was still considerable confidence over exports.

The three sectors interviewed this month—engineering, brewers and distillers, and paper and related industries—were all less hopeful of increasing their profit margins than they had been last December.

Details and tables, Page 36

Scanlon call for work sharing

By Our Labour Editor

UNEMPLOYMENT, not wage inflation, was the main enemy now, Mr. Hugh Scanlon said yesterday in his last presidential speech to engineering section delegates of the Amalgamated Union of Engineering Workers.

Taking as his theme the need for work-sharing to help the unemployed, and attacking Government objections to a cut in the 40-hour week, Mr. Scanlon gave a warning that school-leavers would seek extreme political solutions—whether of the Right or ultra-Left.

"They virtually exchange the desk for the dole queue and, unless something is done quickly and decisively, to-day's youth will not tolerate the privations of my generation."

Job creation schemes could be only palliatives. "I know that in saying these things I must accept my share of responsibility in not fighting more vigorously for these things during my term of office as president.

"But, faced with the excessive number of claims on wages, conditions and hours we have, of necessity, had to concentrate on wages because of the then high cost of living."

Although involved in discussions which have just begun between the TUC and Ministers on the economy, Mr. Scanlon purposely omitted any reference to the next phase of incomes policy. He believes that will be a job for his successor, whose name will be announced to-day. The contenders are Mr. Bob Wright for the Left and Mr. Terry Duffy for the Right.

He said that special pay deals for public servants such as police, firemen and soldiers could be afforded only by a country which was economically strong. That, in turn, meant paying workers, especially skilled workers, in manufacturing industry the proper rate for the job.

Of the 10 per cent. limit, he said that it would have been more straightforward for employers and unions alike to say honestly and in advance whether or not they were going to acquiesce to the guidelines.

THE LEX COLUMN
Equities and the MLR debate

This week the Government will again be grappling with the pros and cons of a rise in Minimum Lending Rate, in a situation in which the firmness of rate in New York will be giving greater conviction to the hawks. Each week that passes since the Budget makes it easier for the authorities to blame a rise on new developments rather than to accept that the decision to set a figure of $7\frac{1}{2}$ per cent. was a miscalculation.

The debate is being conducted against the background of substantial recent pressure on sterling, with to-morrow's official reserve statistics likely to show a drop of the order of $3bn. during April. Of that, approaching $2bn. will probably represent support for sterling since the trade-weighted index dropped below about 63 just before the end of March (it is now 61.4).

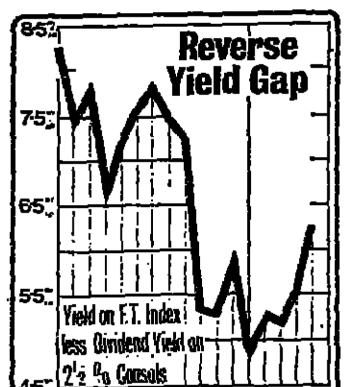
Sterling M3

These figures will have a large impact on the monetary figures. It is now possible, for instance, that the authorities will have just squeaked within the 13 per cent. upper limit for growth of sterling M3 during the year to mid-April. On the other hand, there could have been an acceleration in domestic credit expansion last month, bringing back disturbing echoes of 1976. Fortunately the size of the reserves, the rate of inflation and the balance of payments are all much healthier than they were two years ago.

The securities markets will, as usual, be watching the evolution of monetary policy with decidedly mixed feelings. In the short run, higher interest rates are painful but nothing would undermine the confidence of investors more rapidly than indications that the achievements of the past 18 months are going to be tossed aside ahead of the impending election.

Already the Budget has posted the warning signs. More dangers lie in the round of competitive Parliamentary tax cutting which could put £500m. or more on to the PSBR before the Finance Bill reaches the statute book. In pointed contrast, Wall Street offers a current example of an equity market that is actually being encouraged by credit tightening moves.

So far in 1978 the U.K. securities markets have been notably affected by over-optimism. Four months ago they entered the New Year in a relaxed if unambitious mood, in the belief that monetary growth had been kept securely within bounds by December's surge of gilt-edged buying, and that the balance of payments on current account would remain in surplus through the year. These ideas were rudely shattered by the terrible January money supply and trade figures, leading to the chartist-dominated bear raid



which took the FT 30-Share Index down to 433.4 at the beginning of March.

The 30-Share has twice bounced back strongly to above the 460 level, however, and is currently showing a decline of only 4 per cent. on the year so far. A less resistant pattern has been shown by gilts, with the FT Government Securities Index down 9 per cent. (touching a low last Thursday) while long yields have climbed from 11.3 per cent. to nearly 13 per cent.

Favouring equities

Thus the reverse yield gap has widened by over a point this year after a sharp drop during 1977. It could be argued that on this basis equities have become rather more expensive against gilts. In terms of cyclical stock market analysis this is certainly a period which can be expected to be favourable for the equity market. The economy is beginning to recover, but it has not yet acquired the kind of momentum which can lead to the development of serious financial pressure on the company sector. Compared with the past two or three years, interest rates remain relatively low. Demands on the equity market by companies for cash, moreover, have tailed right away since last autumn.

In similar conditions in the past—such as early 1972—weakness in the gilt-edged market has given advance warning of a lengthy topping out process in equities. The pattern is [illegible] likely to be so clear this [illegible] for both the gilt-edged [illegible] equity markets were pushed substantially higher levels [illegible] year by the pressure of curren[illegible] inflows. Still, the trends [illegible] corporate financial flows appe[illegible] to be following a familiar path.

Thus industrial and comm[illegible]cial companies achieved rou[illegible] financial balance in the seco[illegible] half of 1977, after a near £2[illegible] deficit in the first six mont[illegible] This chiefly reflected the f[illegible] that the book value of stoc[illegible] (thanks mostly to reduced in[illegible]tion) rose only £1.35bn. in Ju[illegible] December compared with o[illegible] £3bn. in January-June.

Since the year-end, howev[illegible] imports have been rising fa[illegible] and according to the lat[illegible] economic comment from t[illegible] forecasters of the Lond[illegible] Business School, importers m[illegible] have been taking advantage [illegible] favourable world prices and t[illegible] strength of sterling to bui[illegible] stocks. In the past few wee[illegible] input prices have started [illegible] rise again, indicating a furt[illegible] rise in industry's demand [illegible] funds in the months ahead.

Private sector

Of course, the stocks [illegible] imports could be run do[illegible] again, and industry appears [illegible] be very liquid at present. [illegible] the City remains concer[illegible] that not enough room has b[illegible] left for the private sector [illegible] expand. In fact the Treasu[illegible] Budget strategy depends v[illegible] much on the persistence of depression in world trade. [illegible] wonder the financial mark[illegible] were alarmed when [illegible] Chancellor appeared to [illegible] promising more giveaways [illegible] the event of satisfactory agr[illegible]ments on world trade: in th[illegible] circumstances he will need [illegible] reduce his borrowing requi[illegible]ment, not increase it.

Meanwhile, figures publis[illegible] to-day show that the insura[illegible] companies and the pens[illegible] funds combined reduced th[illegible] liquidity by around £300m. [illegible] the final quarter of 1977. [illegible] last year as a whole, out [illegible] cash flow of £6.5bn., they [illegible] £3.5bn. into gilts, £2bn. i[illegible] equities, and £0.5bn. into p[illegible]perty. With private individu[illegible] disposing of $1.9bn. of compa[illegible] securities during 1977, there [illegible] only limited scope for increas[illegible] institutional purchases of gil[illegible]

It is dangerous to ov[illegible]simplify. But the financ[illegible] markets are likely to be inclin[illegible] to view the current moneta[illegible] skirmish as an election ye[illegible] struggle between MLR and [illegible] mortgage rate. It will [illegible] interesting to see which wi[illegible]

Weather

U.K. TO-DAY

RAIN but dry later.

London, E. Anglia, E. Midlands
Rain at first, dry later. Max. 11C-12C (52F-54F).

S.E. and Cent. S. England, Channel Islands
Cloudy, occasional rain. Max. 10C-11C (50F-52F).

E. and N.E. England, Borders
Dry, sunny intervals. Max. 9C-10C (48F-50F).

W. Midlands, N. Wales, N.W. and Cent. England, Lakes, Isle of Man, S.W. Scotland, N. Ireland
Dry, sunny intervals. Max. 11C-12C (52F-54F).

S.W. England, S. Wales
Cloudy, with rain. Max. 10C-11C (50F-52F).

N.E. Scotland, Orkney, Shetland
Dry, sunny. Max. 8C-9C (46F-48F).

Cent. Highlands, N. Scotland
Dry. Max 11C-12C (52F-54F).

Outlook: Dry with sunny intervals.

BUSINESS CENTRES

		Y'day mid-day °C	°F			Y'day mid-day °C	°F
Alexandria	F	26	79	Luxemb'g	R	10	50
Amsterdam	C	13	55	Madrid	C	9	48
Athens	F	21	72	Manchstr.	C	7	45
Bahrain	C	28	82	Melbourne	F	21	70
Barcelona	F	18	64	Milan	C	12	54
Beirut	F	22	72	Montreal	C	2	36
Belfast	C	8	46	Moscow	S	5	41
Belgrade	F	24	75	Munich	C	13	55
Berlin	C	14	57	Newcastle	R	6	43
Bmghm.	C	7	45	New York	S	8	46
Bristol	R	8	46	Oslo	F	11	52
Brussels	C	17	63	Paris	C	12	54
Budapest	C	23	73	Perth	R	21	70
B. Aires	S	23	73	Prague	C	14	57
Cairo	S	34	93	Reykjavik	C	5	41
Cardiff	C	8	46	Rio de J'o	S	29	84
Chicago	S	4	39	Rome	C	17	63
Cologne	C	16	61	Singapore	C	31	88
Copnhagn.	S	11	52	Stockholm	S	7	45
Dublin	C	7	45	Strasbrg.	R	14	57
Edinburgh	C	7	45	Sydney	F	22	72
Frankfurt	R	13	55	Tehran	C	23	74
Geneva	R	10	50	Tel Aviv	F	22	72
Glasgow	C	10	50	Tokyo	R	21	70
Helsinki	S	5	41	Toronto	C	2	36
H. Kong	C	27	80	Vienna	C	17	63
Jo'burg	S	24	75	Warsaw	C	10	50
Lisbon	C	15	59	Zurich	C	11	52
London	R	10	50				

HOLIDAY RESORTS

		Y'day mid-day °C	°F			Y'day mid-day °C	°F
Ajaccio	C	16	61	Jersey	C	11	52
Algiers	C	15	59	Las Plms.	F	20	68
Biarritz	F	13	55	Locarno	R	10	50
Blackpool	C	7	45	Majorca	S	17	63
Bordeaux	C	14	57	Malaga	F	17	63
Boulogne	C	12	54	Malta	F	23	73
Casablnca.	C	18	64	Nairobi	C	20	68
Cape Town	C	17	63	Naples	C	17	63
Corfu	C	23	73	Nice	R	14	57
Dubrovnik	C	24	75	Nicosia	C	24	75
Faro	F	17	63	Oporto	C	12	54
Florence	C	17	63	Rhodes	S	25	77
Funchal	C	19	66	Salzburg	C	19	66
Gibraltar	F	17	63	Tangier	C	16	61
Guernsey	C	11	52	Tenerife	C	16	61
Innsbruck	F	15	59	Tunis	C	16	61
Inverness	C	9	48	Valencia	C	19	66
Isle of Man	C	7	45	Venice	C	14	57
Istanbul	F	21	70				

C—Cloudy. R—Rain. F—Fair. S—Sunny.

Continued from Page 1

Pressure on West Germany

mates, some of which he said were "sloppy" and were prompting "hysterical" remedial suggestions.

He pointed to the forthcoming increase in spending on energy and resources, and did not rule out additional stimulus when the Cabinet reviewed the economy at the end of June.

There was a widespread feeling here that the Bonn Government would act before the economic summit it is due to host in mid-July.

He flew back to Washington with Mr. Blumenthal, the U.S. Treasury Secretary. Both men publicly stressed that U.S.-German relations, especially on economic issues, had improved since February's talks in Bonn between Herr Schmidt and Mr. Blumenthal.

British officials here were once again sceptical of Chancellor Schmidt's vague proposals for an expanded European currency snake. Britain was reluctant to engage in a broader alignment of European currencies unless it was associated with a genuine transfer of resources inside Europe.

Mr. Healey also appeared confident that Fund membership was close to a consensus agreement that a 50 per cent. increase in quotas was desirable and that this should be determined at the annual meeting.

There was some bafflement at the U.S. proposal that there should be "linkage" between a new quota increase and a further distribution of Special Drawing Rights, for which the developing countries have been pressing.

Some observers see this as a diversionary tactic to draw attention away from the proposed substitution account.

The U.S. emphasised that it thought that the time was not ripe for a major distribution of Special Drawing Rights, but was keen to promote greater use of the assets.

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